Issue 61 ● June 1993 ● £2.99 *Overseas price £3.25*

AMIGA COMPUTING

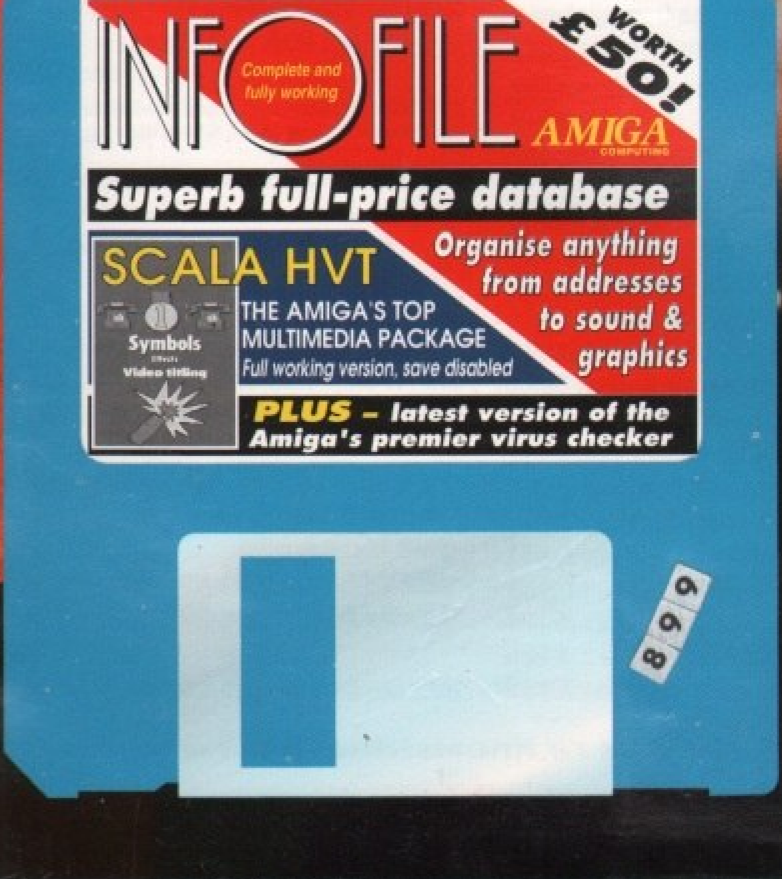


KNIGHTMARE SCENARIO

Amigas bring two top TV shows to life

WORTH £50!

COMPLETE ADVANCED DATABASE PROGRAM



REVIEWED: ProPage 4 ● Scroller 2
Bars and Pipes Pro 2 ● Amiga Updates
Mavis Beacon typing2 ● and more!



Award winning innovative products from

Scanners

"If your in the market for a hand scanner then forget the rest and get Powerscan"
Amiga Format July 1992

Power Scanner v3.0



- 100-400 DPI scanning resolutions
- 64 greyscales
- Thru'port for printer
- Award winning editing, image manipulation & scanning software

Power Scanner v3.0 .... £115
Power Scanner Colour £239
v3.0 Upgrade (inc. interface).. £49.95
v3.0 Software upgrade for Power Scanner users (send SAE) £15

Epson GT-6500



- 600 DPI Colour flatbed scanner
- 24-bit colour
- Software included

GT-6500 inc. Powerscan v3.0 .... £799
GT-6500 inc. ASDG Software £899
Transparency Adaptor Unit £499
Document Feeder £399

Epson GT-8000

- 800 DPI colour flatbed scanner
- 24-bit colour
- 16.7 million colours
- 256 greyscale
- Scan line art images
- Optional automatic document feeder
- Optional transparency adaptor
- Software included

GT-8000 inc. ASDG Software £1199
Transparency Adaptor Unit £499
Document Feeder £399

Floppy Drives

"This drive contains more gadgets than Batman's utility belt"
Amiga Computing Feb1992

PC880B Power Drive



- Award winning drive manufactured by Power Computing
- Super slim design
- Anti-click (Cures that annoying click)
- Virus blocker (Prevents viruses)
- Built-in backup hardware

PC880B with Blitz Amiga £60
PC880B with Blitz & XCopy £75
PC880B (Cyclone compatible)* £65
PC880B in black case £65

*This drive is only available to registered owners of XCopy Professional. You must provide proof of purchase of XCopy Professional

Power Drives

PC880E Economy drive £49.95
PC881 A500 Internal drive £45.00
PC882 A2000 Internal drive £45.00

Dual Drive

- Two high quality disk drives built into one compact unit
- Same features as PC880B

Dual drive £125

Blitz Amiga

- Backup disks at lightning speeds
- Stops all external drives from clicking
- Contains anti-virus from being written into the bootblocker

Blitz Amiga £20

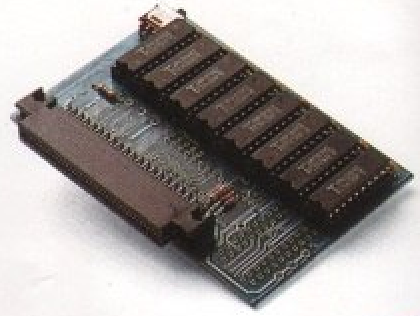
Blizzard Turbo

- For the A500/A500+
- Expand up to 8MB (0K installed)
- Memory and 68000 CPU run at 14.28MHz
- Fast 68000 processor installed on-board
- Fully auto-configuring
- Optical 512K shadow RAM on extra memory bank for shadowing the operating system out of ROM or from disk

Blizzard Turbo £129
Blizzard Turbo 2MB RAM £185
B' Turbo 2MB RAM + 256K Shadow RAM .. £199

RAM Expansions

A600 Memory Cards



1MB RAM with clock £39.95
1MB RAM without clock £34.95

PC501+ RAM Card

Our RAM board is designed especially for the A500+ computer and comes with 1MB of RAM on board to expand your memory to 2MB of chip RAM. Plug-in and go operation (Fits into the trapdoor)

PC501+ RAM card £35.95

8MB Power Board

- Plugs into side slot, fully auto config, full thru'port. Expand 2MB-8MB

2MB £109 4MB £169 8MB £289
1 x 4ZIP chips £14.95

1.5MB RAM Board

- Fully supports 1MB of chip RAM
- Fully compatible with Fatter Agnus

(Kickstart 1.3 and above, not compatible with A500+)
(Your Amiga needs to be opened, this may effect your warranty)

1.5MB RAM board £85

1MB with Thru'port

- Expand your A500's memory up to a total of 2MB without disposing of your existing 512K upgrade
- Works with 1MB of Chip RAM

(512K RAM must be 4 chip type or not exceeding 9cm in length)
(Your Amiga needs to be opened, this may effect your Warranty)

1MB with thru'port £49

A500 RAM Card

- 512K RAM expansion with clock & free software (A500+ compatible)

512K RAM (4 chip) with clock £29
512K RAM without clock £24

PCMCIA Memory

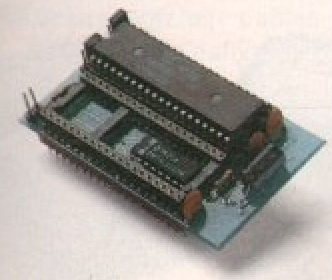
- Ultra slim memory carr
- 2MB Memory card
- SRAM Memory
- For the A600/A1200

2MB Memory card £149

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Auto ROM Sharer



- One of the most advanced kickstart ROM sharers available
- Fits A500, A500+, A1500
- No messing with switches
- No CIA adaptor or other trailing wires
- Simple internal fitting*

* Kick-off requires the lid to be removed from the Amiga. This may invalidate your warranty.

Item	Price
ROM Share	£19.95
ROM Share inc. kickstart v2.04	£55
ROM Share inc. kickstart v1.3	£39
ROM Share for A600	£29
ROM Share for A600 inc. kickstart v1.3	£55

Kickstart v2.04

Item	Price
2.04 Kickstart (chip only)	£32

Chips

Item	Price
4MB x 8SIMM	£POA
1MB x 8SIMM	£25
256K x 4DRAM	£5.00
1MB x 1DRAM	£4.50
1 x 4 ZIP	£14.95
1 x 4 DIP	£19.95
A3000 Static column RAM	£19.95
SIMM 32 x 1MB-60	£59
SIMM 32 x 4MB-60	£179

(These chips cover most memory & hard drives i.e. GVP, Supra, Commodore)

Spares

Item	Price
A500 Power supply	£39.95
v1.3 kickstart ROM	£24
v2.04 kickstart ROM	£32
Fatter Agnus 8372	£44
Big Fat Agnus 8375	£48
Hi-Res Denise	£29
CIA 8520	£9.95
Data Switches 2 way	£15.99
Data Switches 3 way	£17.99
Data Switches 4 way	£19.99
IDE Cable for A600, A1200 (inc. installation software)	£15.95
Modem Cable	£9.95
Printer Cable	£6.95
SCSI Cable	£9.95
SCSI Duel Connector 2 way	£15.95
Monitor Cable for Philips 8833	£9.95
PC880B Upgrade, compatible with X-Copy	£15

A500 Hard Drives

GVP A530 Turbo HD



- 40MHz 68030EC accelerator
- Optional 68882 maths co-processor
- Up to 8MB 32-bit FASTRAM on-board
- Award winning

Item	Price
40MB HD 0MB RAM	£499
80MB HD 0MB RAM	£599
160MB HD 0MB RAM	£729
200MB HD 0MB RAM	£829
68882 Upgrade kit	£224

GVP Series 2 HD

- Up to 8MB FASTRAM on board

Item	Price
40MB	£299
80MB	£379
160MB	£529
200MB	£599
Each 1MB x 8SIMM	£25

Video Backup System

- Use VCR as a backup storage device
- Blank video tape is all that is required
- 200 Amiga floppy disks will fit on a 4 hour tape
- Can be used for hard disk backup
- There is room for 175MB of data
- Backup an Amiga diskette in 1 minute
- Restore even to an unformatted disk
- Hard disk backup, software allows you to specify which files and directories to be stored
- Low cost storage, 2 pence per MB
- Menu driven software
- Allows you to watch TV on a 1084s monitor
- Very high reliability
- Log files, contain title and counter position of every backup
- Video connection check, ensures fool proof operation
- Effective error-correction scheme
- Easy to understand manual
- Highly rated

Item	Price
Video Backup System	£59.95

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- Free technical and buying advice
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Amiga 600

Item	Price
Amiga 600	£285
Amiga 600 &40MB HD	£455
Amiga 600 & 60MB HD	£489
Amiga 60 & 80MB HD	£529

Amiga 1200

Item	Price
Amiga 1200	£390
Amiga 1200 & 40MB HD	£560
Amiga 1200 & 60MB HD	£595
Amiga 1200 & 80MB HD	£639

2.5" IDE Internal HD

- A600/A1200 compatible (inc. cable & installation software)

Item	Price
40MB Internal HD	£179
60MB Internal HD	£205
80MB Internal HD	£229
130MB Internal HD	£359

Commodore CDTV

Item	Price
CDTV multi-media pack	£399

CDTV Software

Title	Price
A Bun for Barney	£29.99
Barney Bear goes camping	£29.99
Battlechess	£39.99
Case of the Cautious Condor	£34.99
CD Remix v2	£34.99
Fred Fish CDPD Collection	£19.95
Fun School 3 (under 5's)	£24.99
Fun School (5-7yrs)	£24.99
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World Vista Atlas	£54.99
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Power Scanner **Amiga Format Gold**

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80MB £319
160MB £449
200MB £549

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- SCSI or IDE 3.5"

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160MB £329
200MB £499

(Suitable for GVP G-Force, GVP HD or Nexus HC)
Other sizes of HD available, please call

1Gigabyte HD

- Internal Hard Drive
- A1500/A2000

1GB Hard Drive £999

Power Board

- New RAM board from Power
- A1500 / A2000 RAM board

2MB £99
4MB £149
8MB £239

Macintosh Emulator

AMax-II Plus £299
(Mac ROM Chips required)

Commodore Amiga

- Amiga 4000 includes
- 68040 micro processor
- 25MHz clock speed
- 16.8 million colour palatte
- Display up to 256,000 colours on screen
- Built-in 3.5" high density disk drive

Amiga 4000 & 120MB HD £2099
Amiga 3000 & 52MB HD £1299
Amiga 3000 & 105MB HD £1499
Amiga 3000T 100MB HD 5MB RAM .. £1999
Amiga 3000T 200 MB HD 5MB RAM £2499

Amiga Accessories

A2300 Genlock £57
A2065 Ethernet £245
A2232 Serial Card £104
A2320 Display Enhancer £163

OpalVision

- 24-bit graphic card
- 16.8 million colours available
- Equipped with 1.5MB of display RAM
- Opal Paint 24-bit painting
- Opal Presents
- King of Karate

OpalVision £699

More information available
OpalVision roaster chip available soon

Monitors

Philips CM8833 Mk2

- With cable
- Available with Lotus Turbo Challenge 2
- On-site maintenance

CM8833 Mk2 .... £239

Other Monitors

Commodore 1084S £199
Commodore 1960 TRI-SYNC £479
NEC Multisync 4FG £549

ICD Flicker Fixer

Flicker Free Video 2

- Stop that annoying flicker
- Fits internally in the A500
- Multi-sync monitor required

Flicker Free Video 2 .... £199

Music



- The complete music kit for the Amiga
- Includes:
- Music Kit package
- Real Time Sound II
- Over 32 special efffects
- Can work with MIDI instruments
- Digital Studio III
- Midi interface
- Stereo sound digitiser
- Stereo speakers
- All leads & software

The Music Pack £69.95
Speakers only £15.95
Midi interface £15.95

Optical Hard Drive



- Manufactured by Power Computing
- 128MB on one optical disk
- Read and write optical disks
- 40ms running speed
- Built-in power supply
- High power cooling fan
- 25-way and 50-way SCSI ports
- Thru'port built-in
- SCSI ID switch
- Compatible with major SCSI controllers

128MB optical drive (Internal) £729
128MB optical drive (External) £999
128MB 3.5" optical disk .... £39.95 each
SCSI controller card
for A1500 / A2000 .... £129
(Compatible with Amiga, PC, and Mac. A SCSI controller is required on the Amiga and PC)

Floptical Disk Drive

- Stores 20MB on one 3½" disk
- Cost effective mass storage unit
- Can be used as a 1.44MB floppy with Amiga DOS and AMAX
- AMAX compatible with DMI Mac driver
- Packs an entire back-up onto one floppy
- Additional disks available
- Internal version for A1500/2000/3000
- External version for A500
- SCSI Interface required

Internal A2000 kit £289
Internal A3000 kit £289
External A500 kit £389
A1500 .... £599

Accelerator

GVP G-Force

- 68030 accelerator board
- 68882 Maths co-processor

25MHz 1MB RAM £499
40MHz 4MB RAM £759
50MHz 4MB RAM £1099
Hard drive mount kit £35

68040 Fusion 40 inc. 4MB £999
68040 Pro-Peripherals inc. 4MB £999

1MB x 8SIMM £25
SIMM 32 x 4MB-60 .... £179
SIMM 32 x 1MB-60 .... £59

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Colour PowerScan

The Power Computing colour hand-held scanner for the Amiga is now available. This scanner offers the following features

- 4096 colours
- 50-400 DPI
- 4 Scanning modes
- Text
- Greyscale
- Colour halftone
- Colour

The Amiga interface plugs into an A1500/A2000/A3000/A4000 expansion slot with a separate version which connects to the expansion connector of the A500/A500+. The A500 version has a through-port which is compatible with all Amiga 500 expansion peripherals.

The software supplied with this scanner is the new PowerScan Professional 3, which also supports the greyscale scanner and will be available as an upgrade to existing users of PowerScan for £15.

Colour PowerScan v3.0 features

- Real-time 'True-feel' scan option in colour halftone mode
- Images are stored internally as 12-bit graphics, not HAM. This means that no quality is lost due to the Amiga only being able to display HAM images in 4096 colours
- Images are displayed as HAM pictures
- HAM images may be loaded from disk and edited using PowerScan 3
- Image size that can be handled is limited only by the amount of memory available
- Memory does not have to be chip memory as in many art packages
- Images can be saved in various file formats
- View whole image function
- Scale/rotate/skew image or clipboard by any amount
- Crop image
- Clean up, lighten or darken image
- Variable zoom mode
- Draw freehand, lines, circles, boxes and polygons in various fill patterns, brush sizes, paste modes, or with the clip board image
- Clipboards may be scanned directly, or any shape can be cut from the main image
- The software is compatible with all Amigas
- Supports Workbench 2 and ECS screen modes

Colour PowerScan now available

New v3.0 Scan software

Item	Price
PowerScan Colour v3.0	£239
PowerScan Greyscale v3.0	£115
PowerScan v3.0 software upgrade	£15

The Amiga can only display 16 greyscales

Printers

All printers include cables and next day delivery

Star Printers

Printer	Price
LC20	£139
LC100 colour	£165
LC200 colour	£195
LC 15	£229
LC24-100	£185
LC24-200	£225
LC24-200 colour	£279
Laser LS-5	£699
Laser LS-5EX	£899
Laser LS-5TT	£999
SJ-48	£229

Epson Printers

Laser

Printer	Price
EPL-4000	£639
EPL-4300	£799
EPL-8100	£1349

Inkjet

Printer	Price
SQ-870	£509
SQ-1170 (132 column printer)	£629

Dot Matrix

Printer	Price
LQ-570	£289
LQ-1070 (132 column printer)	£449
LQ-100	£209
LX100	£189

Supra Modems

Item	Price
Supra Fax Modem+ (inc. PSU, cable, software)	£139
Supra Fax Modem 32BIS	£269

Miscellaneous



Item	Price
Power Mouse	£15
Optical Mouse	£29.95
Replacement optical mouse mat	£9.95
100 Branded disks + disk box	£69.99
Quality branded disks (10)	£9.95
A1200 Dust cover	£5
Trackball	£29.95
Crystal Trackball	£34.95
Optical Pen Mouse	£34.95
Brush Mouse	£19.95
Aviator 1 joystick	£35
Intruder 1 joystick	£29.99
Maverick 1 joystick	£15.99
Python 1 joystick	£9.99
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AMIGA insight

Nine pages for enquiring minds

The very best monthly column covering ongoing Amiga topics – essential reading for all enthusiasts

FEATURES

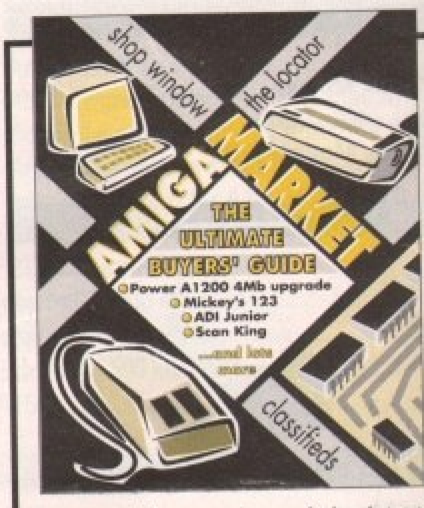


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Plus 3 more great competitiions

1. Twenty five of Psygnosis' latest war game Combat Air Patrol up for grabs. Page 98
2. Thirty sets of Song Collections for the Miracle Keyboard to be won. Page 132
3. Win a day at a television studio during the filming of Knightmare. Page 134

COVERDISK



Infofile

A complete, fully working, commercial Amiga database program with many advanced features, including the ability to play sounds and display pictures from within the same record

Scala HVT

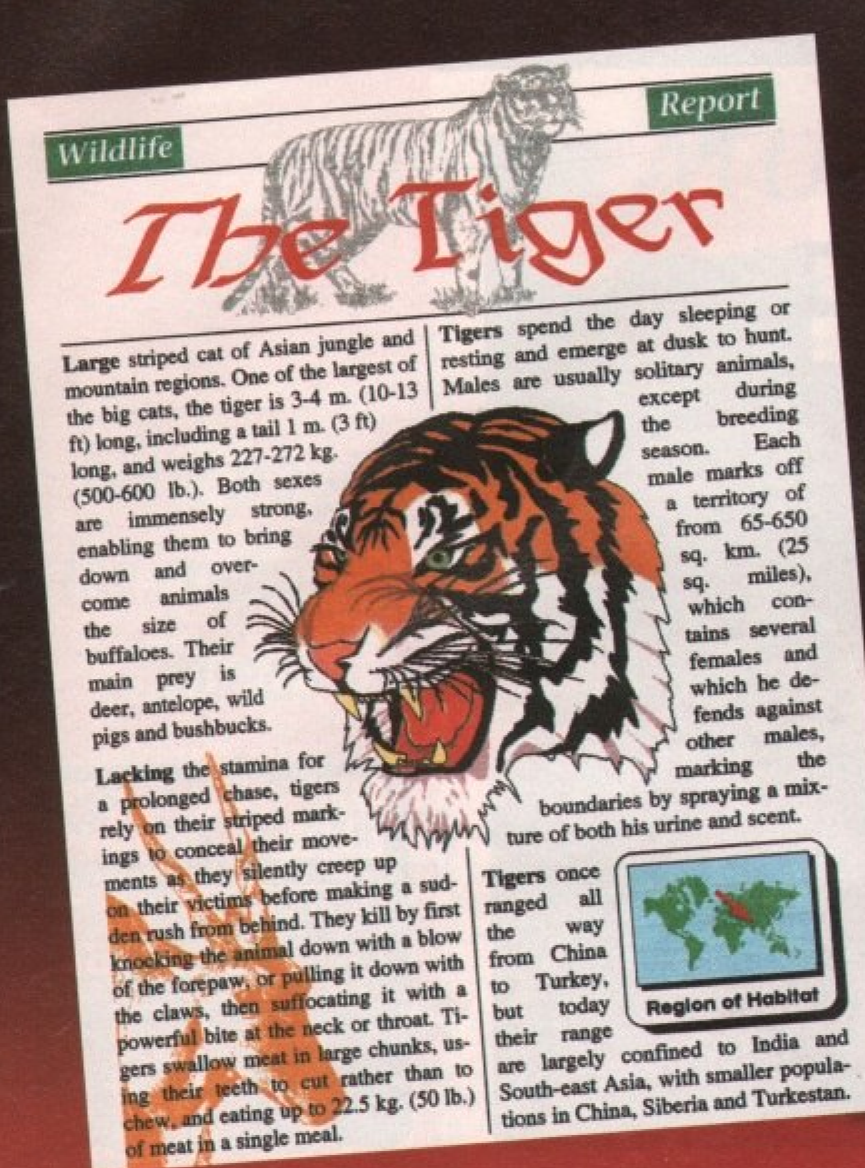
Try this exclusive demo of the Amiga's number one productivity package and add a new dimension to tired old wedding videos

Virus Checker v6.22

The latest update of the Amiga's most popular virus killer, offering top notch defences against the viral menace

Turn to page 26 Now!

The Best Word Publish
(Amiga Forma



Wildlife Report

The Tiger

Large striped cat of Asian jungle and mountain regions. One of the largest of the big cats, the tiger is 3-4 m. (10-13 ft) long, including a tail 1 m. (3 ft) long, and weighs 227-272 kg. (500-600 lb.). Both sexes are immensely strong, enabling them to bring down and overcome animals the size of buffaloes. Their main prey is deer, antelope, wild pigs and bushbucks.

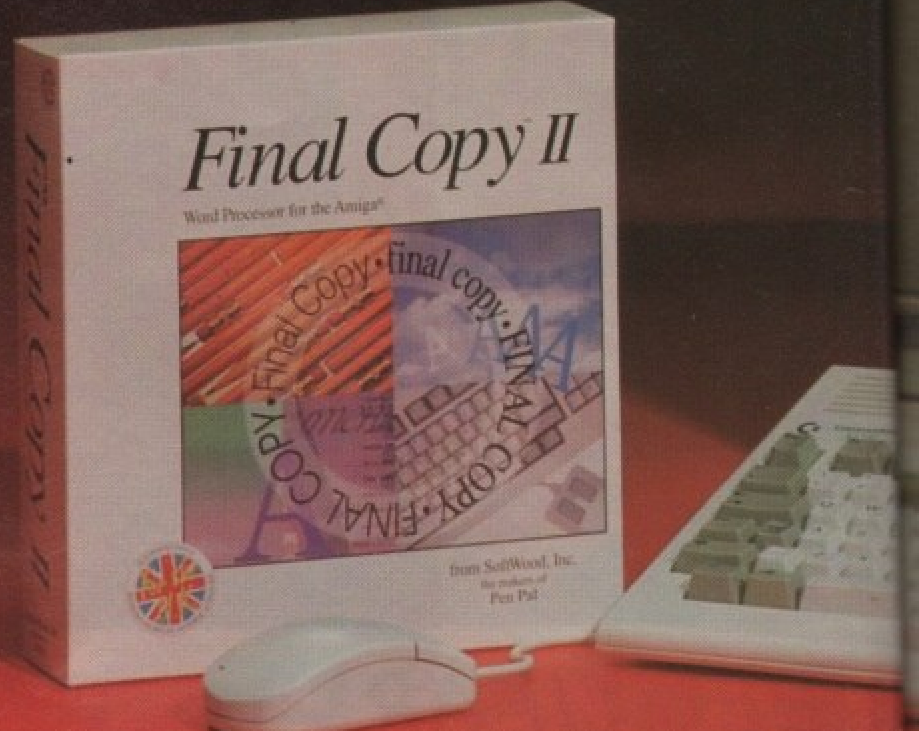
Lacking the stamina for a prolonged chase, tigers rely on their striped markings to conceal their movements as they silently creep up on their victims before making a sudden rush from behind. They kill by first knocking the animal down with a blow of the forepaw, or pulling it down with the claws, then suffocating it with a powerful bite at the neck or throat. Tigers swallow meat in large chunks, using their teeth to cut rather than to chew, and eating up to 22.5 kg. (50 lb.) of meat in a single meal.

Tigers spend the day sleeping or resting and emerge at dusk to hunt. Males are usually solitary animals, except during the breeding season. Each male marks off a territory of from 65-650 sq. km. (25 sq. miles), which contains several females and which he defends against other males, marking the boundaries by spraying a mixture of both his urine and scent.

Tigers once ranged all the way from China to Turkey, but today their range are largely confined to India and South-east Asia, with smaller populations in China, Siberia and Turkestan.

Region of Habitat

We'd simply call it the best Amiga Word Processor. But if after using it, the experts insist on calling Final Copy II the best Word Publisher as well, we're not complaining!

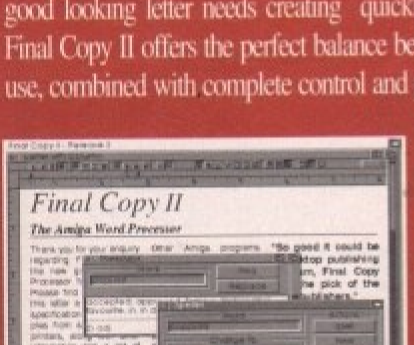


Final Copy coined the phrase "Perfect Printing on **any** Printer". We mean it - this document proves it!

Created in Final Copy II and printed on a standard 24-pin Citizen Swift, it shows a small number of Final Copy II's features: Smooth Scaleable Outline Fonts, Multiple Columns, Drawing Tools for Boxes, Borders, Shadows, Lines and Arrows, White-Out Text, Text Printed over Graphic Images, Text Obliquing, Auto-Flow Text around Graphics and of course, Import of Colour and Mono Graphics Pictures.

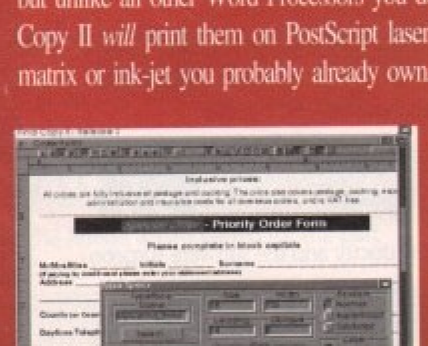
Final

Word Publishers go beyond simply producing normal letters and documents (at which Final Copy II naturally excels) and progress into a world where *how the whole document looks* is just as important as *what it says*. Admittedly, this can be achieved with Desk Top Publishers, but they can't easily be used as Word Processors, especially when a good looking letter needs creating quickly - they're far too cumbersome. This is where Final Copy II offers the perfect balance between the two requirements. Ease and speed of use, combined with complete control and perfect final printed presentation.



Document creation is so simple with 28 On-Screen Buttons for routine formatting and navigating commands, like Auto-Hyphenation. With *true* WYSIWYG display, you can even edit whilst your pages are magnified up to 400% (or reduced). Long documents are supported with Title/Master Pages, Style Sheets, Left/Right Page Binding Offset and Auto Numbering. Because your text needs to be perfect, the British-English Collins Proximity Speller combined with the Thesaurus (for that added inspiration) help you to produce the precise, printed page.

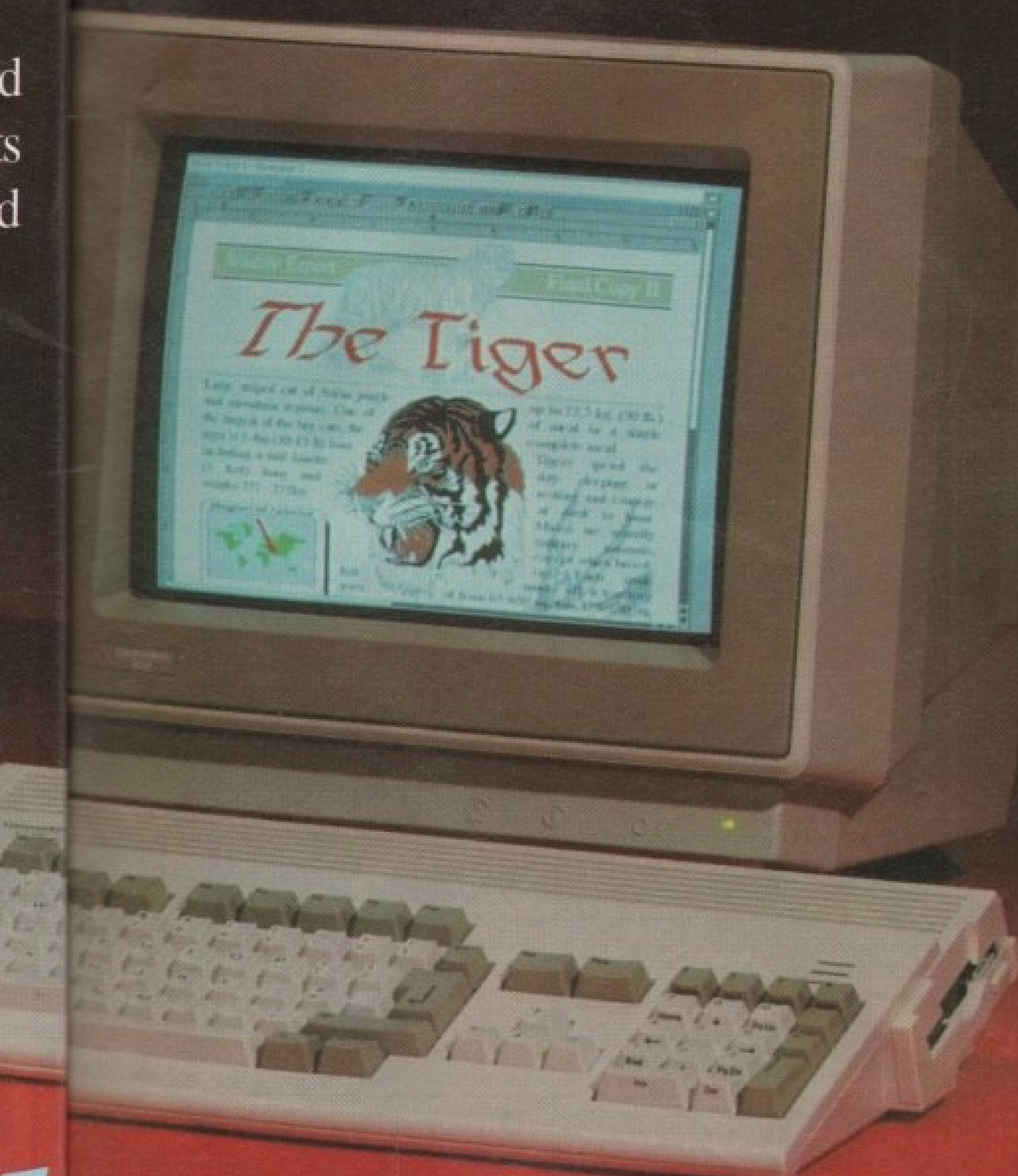
Compugraphic, Adobe Type 1 PostScript or Nimbus Q PostScript? If you *want* lots of fonts, you can *have* lots of fonts! Final Copy II can use thousands of superior Adobe Type 1 or Nimbus Q fonts (the same as those used on professional publishing systems). Both these types are PostScript fonts, but unlike all other Word Processors you don't need an expensive PostScript laser to use them! Final Copy II *will* print them on PostScript lasers, *or* any graphics capable printer. This includes the dot-matrix or ink-jet you probably already own. Even if you have your own Compugraphic* font library you'd still like to use, Final Copy II is fully compatible, outputting to any graphic printer. Final Copy II is unrivalled in its range of fonts supported, and as you can see here, you have complete control over text formatting. When using the outline typefaces included, or any additional fonts, they'll output perfectly[1] - no matter what size they're scaled to - with absolutely *no* jaggies! Opening multiple documents also allows editing whilst printing in background mode (free memory dependent).



Compatible with all Amigas from A500 to the latest A1200/A4000 ranges with either a second floppy or a hard drive. A minimum of 1Mb. of available free RAM is required (A600 hard drive - 1.5Mb.) however, as with all advanced graphical programs, extra memory (eg. 1.5/2Mb. - the more the better) will be required to exploit all features fully.

Available from all good Amiga Software Dealers, or from SoftWood Europe - please phone for a list of nationwide stockists.

ng Program of its Type
s words not ours)



Amiga Format think we have the Best Word Publisher. We'll show you why with a list of features that users tell us are important (below).
If you'd like to know who's also chosen Final Copy, Commodore specify it as an option with some of the most powerful Amigas available in the United States. What better recommendation could you have?

	Feature	Wordworth 2	Final Copy II
Fonts and Printing	Compatible with Standard Amiga Workbench 2 Compugraphic Fonts	YES	YES, But would Suggest use of Better PostScript Fonts
	Compatible with Standard Adobe Type 1 and Nimbus Q Scaleable Postscript Fonts	NO/NO	YES/YES
	PostScript Font Outlines on all Printers	NO	YES
	Maximum Number of PostScript Fonts	Limited to a total of 35	Infinite
	Download Extra Fonts to PostScript Printer	NO, Can't download extra fonts	YES, Automatic
	Landscape (Sideways) Printing on all Printers	NO	YES, Automatic
	Reclaim Printing Resolution (Quality) of Scaled (Reduced and Enlarged) Graphic Images	NO	YES, Same High Quality when Reduced and Enlarged
	Print any Text or Graphic in Colour	YES	YES
	No. of Colours Printed in Imported Pictures	Limited by Screen Mode Used	Output as Original Image
	Graphics Printing (HAM & IFF ILBM)	Good if Graphics not Scaled	Always Best Possible
	Text Width (Compress and Expand)	NO	YES
	Variable Text Obliquing (Slanted Text) Both Positive and Negative Attributes	NO	YES
Graphics	Box, Rounded Box, Circle, Oval, Line, Variable Border & Arrow Drawing Tools	NO	YES
	Crop (Trim) to Size Imported Graphics	NO	YES
	Supports A1200/4000 AGA Chipset	YES, 256 On-Screen Colours	YES, 256 On-Screen Colours
	Create Border around Graphics and Pictures	NO	YES
Editing and Formatting	British-English Spelling Checker	YES, Collins Proximity with Legal & Medical Supplements	YES, Collins Proximity with Legal & Medical Supplements
	British-English Thesaurus	YES, Collins 826000 Synonyms	YES, Collins 826000 Synonyms
	Page View Magnifications and Reductions	One Fixed Print Preview	7 Variable stages - 25% to 400%
	Edit Document while Magnified or Reduced	NO	YES
	Search & Replace (150 words in 9000, 7 Pages)	61 Seconds (On Amiga A1200)	7 Seconds (On Amiga A1200)
	Index and Table of Contents	YES, Automatic	NO, Requires Manual Entry
	Multiple Newspaper Style Snaking Columns	YES, 2 to 32	YES, 2 to 6
	Style Sheets, Master Pages, Title Pages	NO	YES
	Uses Standard Amiga Clipboard for Cutting & Pasting to and from Different Applications	NO	YES
	Small Caps Typographical Control	NO	YES
Geneal Features	Conforms to Commodore's Amiga Standard 'Look & Feel' Guidelines	NO, Non Standard User Interface	YES
	On-Screen Maths (Column Addition)	NO	YES
	Import ASCII Text from any Word Processor	YES	YES
	UK Registration, Upgrade and Support	YES	YES
	Free Memory Required	1.5Mb. Minimum More Recommended	1Mb. Minimum More Recommended
	Free Ongoing Technical Phone Support	NO, £38 per year after 60 days	YES, Free of Charge
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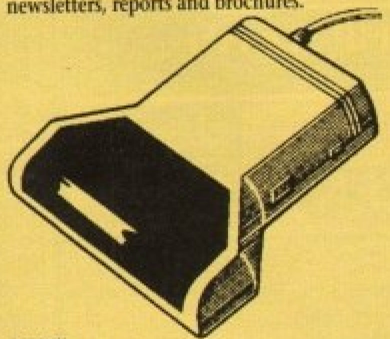
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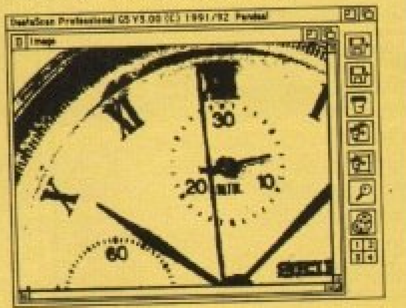
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VISA

Commodore take tower trail

John Butters reports from Hanover



A4000T: Tower system with SCSI-II interface

THE giant CeBIT technology show held in Germany was the launch pad for two new Amiga platforms and announcements on sound and graphics improvements for the range.

Commodore used the exhibition to unveil the 68030-based version of the top-end computer, which has been expected since the release of the A4000/040,

Externally, the A4000/030 looks identical to its older brother, but lift its lid and there are a couple of extra changes to be discovered.

They include slightly less memory, with this machine coming with four megabytes instead of the A4000/040's six, and the maths co-processor is optional.

For a model fitted with an 80 megabyte hard drive it will sell in Britain for £999 including VAT, and a version with a 120Mb drive will cost an extra £100.

The other new Amiga unveiled was the A4000T, a tower version of the 68040 machine.

It has a couple of enhancements over the Desktop version such as a SCSI-II interface and higher capacity hard drives.

Commodore also confirmed a report in last month's *Amiga Computing* that a digital signal processor (DSP) upgrade will be available later this year for their A3000 and A4000 series.

The chip is under development by the American giant AT&T, and the board will have built-in stereo Codec to provide digitising support for the chip.

Fully multi-tasking, in addition to its own two megabytes of memory will manipulate the Amiga's main chip and fast RAM.

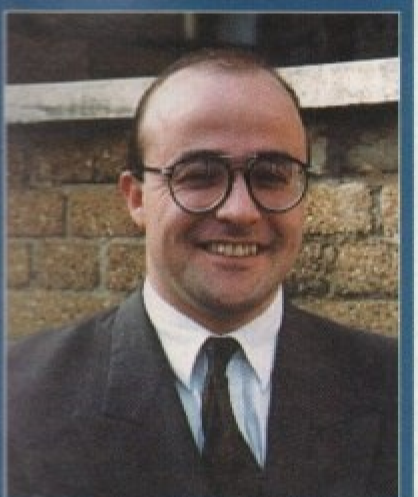
It will run DCOS, an operating system licensed from AT&T, and feature microphone in/out for mixing.

Eventually the firm will add DSPs to all Amigas, and have plans for Amiga speech recognition.

Details of completely redesigned Amiga graphics were also revealed, less than six months since the launch of the AGA set. Two sets are under development, one for high end use and the other for low-end. It is claimed they will be compatible with each other and earlier graphics. According to the manufacturer, the low-end chips have a resolution of 800 x 600 pixels, operate at 72Hz, include 16Mb of chip RAM and have an extended colour mode.

The other version – which is further into development – will have four custom chips, a true colour resolution of 1,000 x 1,000 pixels and multiple blitter support.

Kelly Sumner quits



Sumner: Leaving after ten successful months

IN a surprise move Kelly Sumner has quit Commodore after spending just ten successful months in the number one UK seat. Two senior executives are taking over in his place as joint general managers.

Sumner took control last summer in his thirteenth year at the company, and since then sales have soared to record levels and a new generation of Amigas has been introduced.

His move takes him to Gametek, a large US-based games company, where he is tasked with opening a UK office and setting up distribution across Europe.

The software house supports a range of consoles and computers including the Amiga, and has plans to move into CD technology.

David Pleasance rejoins Commodore, after spending time working in the US and Greece, as general manager for sales and marketing.

Former finance director Colin Proudfoot heads operations and finance.

"Both general managers are well known to the customer base and their joint roles should significantly enhance the strength of our UK operations," said a Commodore spokesman.

CD Amiga denied

A CD-BASED system using the latest Amiga graphics will be launched by Commodore before Christmas, it has been claimed.

According to trade newspaper *Computer Trade Weekly*, software developers around the world have already been given full details of the machine's specifications.

It will be powered by a 68020 processor, have the AA graphics chip set and include expansion ports to enable a keyboard, 3.5in disk drive and other peripherals to be added.

The manufacturer denies the plan, as they did when *Amiga Computing* exclusively revealed details of a machine with very similar specifications in January's issue.

Kelly Sumner has, however, confirmed that there will be a new machine later this year which has the potential of lifting Amiga sales higher than last year's record.

There are fewer than 30,000 CDTV's in the UK and Sumner recently said that Commodore got three basics wrong with the machine; price, specification and support.

"I think CDTV's time has been and gone," he said.

News Briefs

CD assistance

CD ROM users can now join a non-profit making group which aims to provide information, technical assistance and a source of discounted multimedia hardware and software.

Each new member is given a free CD title and a bimonthly newsletter for an annual fee of £29.99. CD ROM User Group can be telephoned on 0424 730326.

Learning notes

AMSTRAD NC100 owners can now learn how to get more from their notepad from a new book just published by Kuma Computers (0734 844335).

NC100 Magic covers everything the machine can do including wordprocessing, storing names and addresses, keeping a diary and mail-merging. The 340-page guide costs £14.95.

Drive partner

JUST available for A1200 users is a hard drive installation disk which contains Read Me files and programs to prepare, partition and format.

An install program to copy the Workbench and associated files to the hard drive with a click of the mouse is also included on the disk.

It comes from First Computer Centre (0532 319444), and costs £5.99, but for guaranteed next day delivery the price is £7.99.

Storing more

A HIGH density external floppy disk drive offering Amiga users up to 1.76Mb of storage capacity is now available from Power Computing (0234 843388).

The £129 drive can read all Amiga disks, and work is continuing on an internal version which should be available within a few weeks.

AMOS price down

EUROPRESS Software have cut the price of AMOS Professional and released a free update disk to make the product compatible with the A1200 and A4000.

This means that newcomers can now buy the package for £49.99, a saving of £20 on the original price. Europress can be telephoned on 0625 859333.

Citizen go dotty with colour

CITIZEN's Swift range of dot matrix printers has been extended this month with the launch of the Swift 90C, a 9-pin colour model which will sell for £257.

It was shown for the first time at the CeBit information technology exhibition in Hanover, and will be available in Britain from late spring.

The machine runs at 180 characters per second, and 216cps when printing at 12 characters per inch. Six fonts can be used in near letter quality mode, and two in draft.

The manufacturer claims that it is among the quietest models on the market, and it is Epson FX850-compatible.

"There is a large and continuing consumer demand for a printing solution that offers a low buying price, while maintaining high quality output," said Citizen's Anthony Odhams.

"To satisfy this demand, we have built on the strengths of the Swift 9 and incorporated many features of the successful 24-pin Swift 2 series into the Swift 90C."

A monochrome version will be sold with a £233 price tag, with a colour kit available as an extra.



Swift 90C: Satisfying consumer demand

Choose your own drive

DEALERS will soon be able to add hard drives to suit individual A600 buyers' needs following Commodore's decision to stop stocking A600HDs.

At the moment the firm is selling hard disk versions of the machine in their £399 Epic pack, but they now believe it is better for each customer to buy a drive that matches personal requirements.

Kelly Sumner has said that hard drive machines bring confusion, with some people wanting a 40Mb version, whereas others need 80Mb or 120Mb.

Recently some distributors became Commodore-approved A1200 hard drive fitters, and many suppliers are now offering models with a Wang on-site service warranty.

Meanwhile, the number of A600 packs will also be reduced later this year, when the firm will have just one offering. The company is choosing between a standalone model or bundle.

A decision to pack the A1200 with software has already been taken. Commodore hope to sell the bundle across Europe although its contents remain to be fixed.

More bite...

DESIGNED to give the A1200 the performance of a workstation is ICD's new Viper 1230, an accelerator board featuring a battery-backed clock and DMA expansion port.

It runs from Motorola 68030 processor running at either 40 or 50MHz, has a coprocessor socket to enable a 68882 FPU to be added and can accept up to 32Mb of fast RAM.

Viper's DMA port (VDP) gives users the opportunity to add high-speed peripherals such as SCSI-II controllers, DSP board, modem or networking cards.

And Viper S2 is the first peripheral designed for the VDP. A SCSI-II controller, it offers data transfer rates of between five and 10Mb/second.

Included with the controller is a SCSI-II connector which can be used to support a 2.5in SCSI hard drive inside the computer.

Both are supplied with a year's warranty, which can be extended within 90 days of buying. The British distributor is Power Computing, who can be telephoned on 0234 843388.

Prices were unavailable at the time of going to press.

Scanning with OCR

AMIGA publishers are targeted for a new scanning package which contains three programs including optical character recognition software.

Bundled with a 256-greyscale scanner, Migraph's Scan and Save supports a range of formats for importing and exporting files to and from many painting and publishing packages.

Migraph's Junior OCR aims to transform the Amiga into a text reading system, recognising a wide range of typefaces and fonts and learning new characters automatically. And Merge It enables two images to be joined. The process is claimed to be simple, easy and quick with a portion of each picture being show on screen, including the overlap area.

The operator uses the computer's arrow keys to move one of the images around until the halves are aligned.

Requiring at least two megabytes of memory and a hard disk, the pack costs £149. Telephone 081-365 1102.

HiSoft move into multimedia

NEW multimedia hardware is promised for Amiga users following Bedford-based HiSoft's recent buy-out of Audio Visual Research (AVR).

The firm will take over all AVR's current and future business and use its name on all new hardware, while keeping the HiSoft name for software packages.

AVR are already a household name in the Amiga market, having produced such products as Stereomaster, Clarity 16, and Videomaster.

Their current range is marketed by Microdeal and this arrangement will continue under the new ownership. Future products will be sold by the parent company.

"This acquisition takes HiSoft into new markets and consolidates its already strong position in the Atari and Amiga marketplace," said HiSoft boss David Link.

"We shall be producing new hardware titles for these machines as well as investigating other platforms and we shall concentrate on multimedia solutions for popular home computers." The directors of AVR – Anthony Rachine and David Woodhouse – have joined HiSoft as technical managers for their products.

HiSoft and AVR can be telephoned on 0525 718181.



Link: Taking HiSoft into new markets

News Briefs

Golden upgrade

GOLDEN Gate emulator users can now upgrade their software to give several new features including the ability to use Amiga floppy drives as PC drives under Windows.

The improvements also give better keyboard control and enable the emulation to run as a task in the Amiga environment, giving either more or less speed to Golden Gate.

Existing owners can obtain the update free by sending developer Vortex two Amiga disks and ten international reply coupons. They are at Falterstrasse 51-53, D-7101, Flein, Germany.

Programmers tipped

BUDDING programmers are targeted for The Commercial Games Programmer's Guide, a new addition to Kuma Computers' (0734 844335) range of publications.

It is not designed to teach enthusiasts how to program, but rather to give tips from programming commercial games on all major formats including the Amiga. Price, £9.95.

Joining on CD

TWO public domain libraries have joined forces to produce what's billed as the most comprehensive collection of quality Amiga software on a double CD.

The £39.95 package includes word-processors, home finance programs, games, music demos from groups all over the world, IFF artwork, samples and more. Telephone 081-683 6418.

Fiddle with fonts

MERIDIAN Software Distribution (081-543 2255) have been appointed British distributor of TypeSmith, an Amiga outline font editor.

Using the program, Amiga owners can create and edit PostScript, CompuGraphic and Softlogic outline fonts, and create new fonts with its drawing tools.

It also has the ability to import characters and symbols from structured drawing programs, create custom fonts and include a logo in your favourite fonts. Price, £169.95.

Get more morph for your money

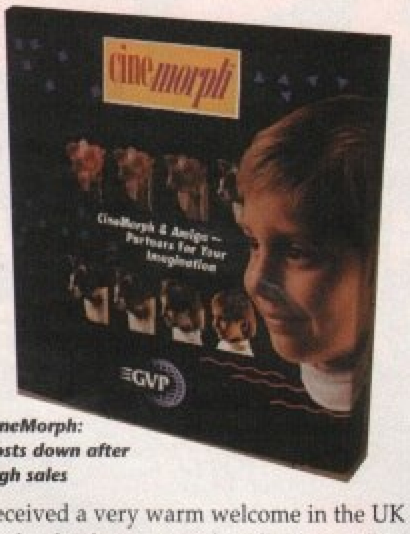
PRICE cuts are the order of the day at Great Valley Products, who have just slashed the cost of two software titles – morphing program CineMorph and graphics manipulator ImageFX.

The recommended price of CineMorph drops to £49.95, a £50 fall. ImageFX which includes CineMorph becomes £249, £20 off the old price.

According to the firm's British distributor Silica Systems (081-309 1111), the move has been made possible because of better than expected sales of both products.

"Both ImageFX and CineMorph have received a very warm welcome in the UK and sales have soared well above what we initially predicted," said Silica's Andy Leaning.

"As a result the development costs have already been recovered and we are happy to pass on the savings now possible."



CineMorph: Costs down after high sales

Amiga price lowest ever

A SUMMER promotion being run by London dealer Silica Systems has brought Amiga prices to their lowest ever, with standalone A500s selling for just £199.

Also on offer from the firm is the A600 with a price tag of £249, and 2Mb versions of the A500 supplied with Silica's Zool games pack for £229.

The Cartoon Classics bundle is also available under the promotion, also with a £229 price tag. The deals will end in early autumn.

Said Silica's Andy Leaning: "This is a great opportunity for 8-bit users looking to upgrade to get an Amiga for a fantastic price, and one which is unlikely to be beaten for some time."



A500: With Zool games pack for £229

Picking up speed...

AVIDEO-YC is an Amiga graphics and animation system due soon from Harrow-based HiQ (081-909 2092).

The package contains a combined 24-bit YUV double-frame buffer, frame grabber and genlock, plus paint, animation and utility software.

The animation hardware is claimed to be better than any other available, with 24-bit animations running at up to 17 frames per second.

For higher speeds a compressed mode allows for frame rates more suited to composite output. They are 12.5fps in 724 x 566 and 25fps in 724 x 283 pixel resolution.The software, AVpaint YV, is a true 24-bit wysiwyg paint package with a range of blending and colour mixing functions.

According to the firm, its most impressive feature is animation editing which allows users to work on their video animations in 24-bit, making it ideal for Imagine and Real 3D.

AVtools, meanwhile, controls the £599 system's advanced features, enabling basic image colour manipulations and conversion between the AVideo formats.

Wider printing

A LOW-cost wide carriage 24-pin printer is the latest addition to Seikosha's range of home and small business machines.

With a choice of nine fonts, the SL-150 is a 136-column model, boasting a print speed of up to 240 characters per second in draft mode.

It has 15k of memory, and other features include quiet mode, paper parking, high speed skip to accelerate printing of charts and tables and a paper-out sensor.

Priced at £349, an optional cut sheet feeder is available for an extra £127 and an year's on site warranty for £10.

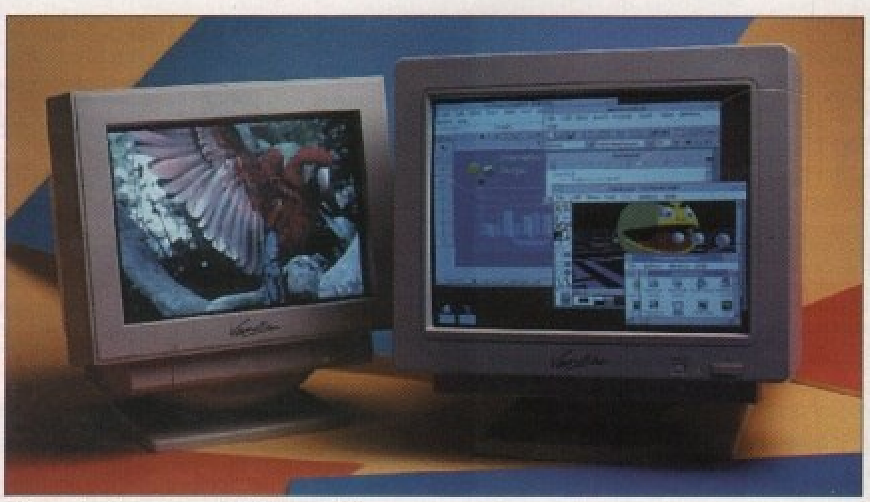
Clean display for graphics

TWO high resolution monitors capable of handling A1200 and A4000 graphics are now available from Herefordshire dealer New Horizon Computers' (0989 750260).

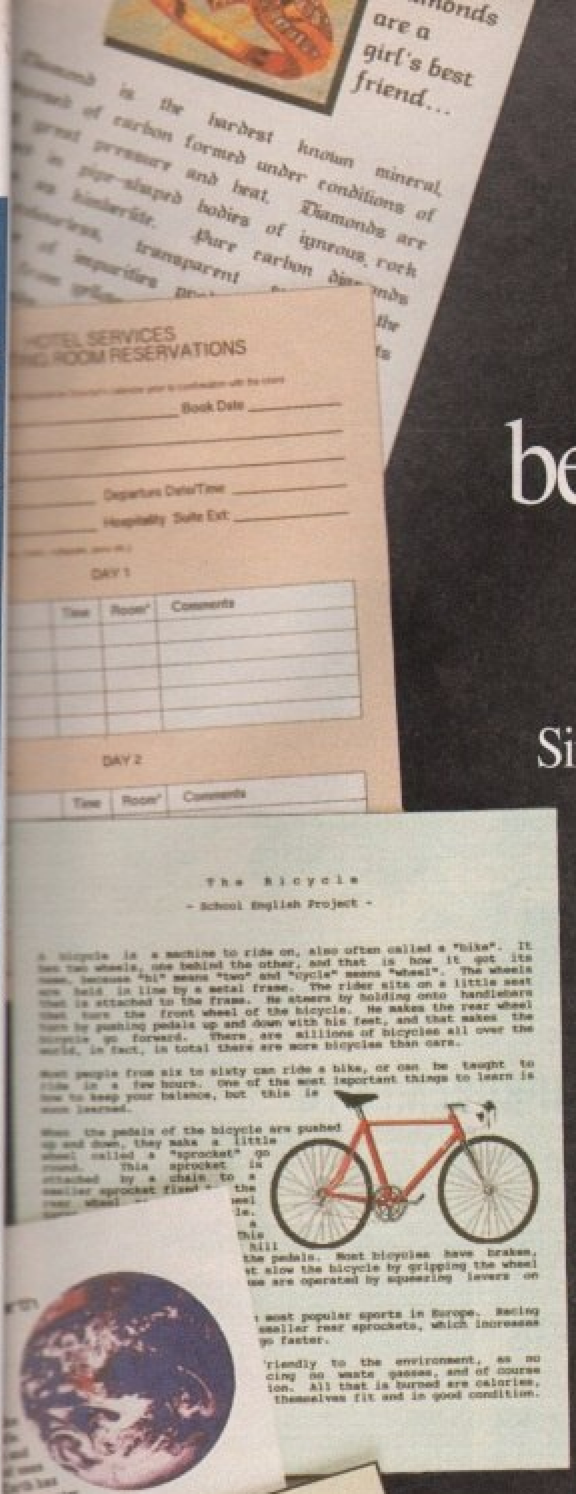
The Vanilla models use flat screen technology and can be bought with either 15-inch or 17-inch screens. They are aimed at people using DTP, graphics and design packages.

User controls on the front panel are horizontal and vertical size, horizontal and vertical position along with contrast and brightness.

Fixed to a swivel base, the screens cost £373.65 for the 15-inch model and £562.59 for the larger version and are supplied with two hi-res boot-up utilities.



Hi-res: Monitors support Amiga graphics



The Best Selling Word Processor and Database just became even better...

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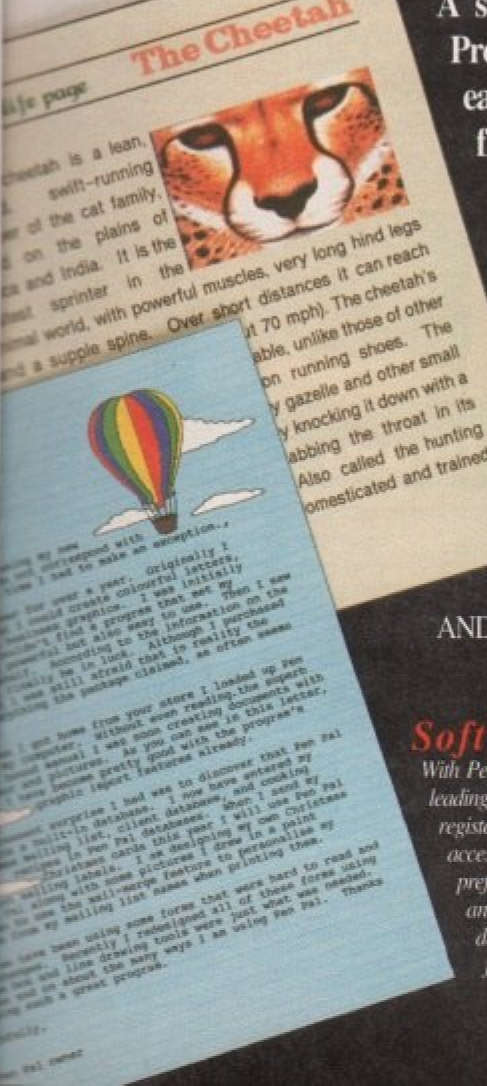
Since its launch, Pen Pal has become the most popular package of its type

Not surprising when you consider the extensive features at your fingertips, combined with user friendly simplicity, it was bound to be a winner! In a comprehensive Word Processor test, Amiga Format commented "There is little to fault Pen Pal, it deserves to do well" - quite a prediction it seems! Format have since said that it's "Still the best value for money..." If you're not a Pen Pal user yet, we hope you soon will be, because at just £49.95... the best just became better, even better value!



Pen Pal

A superb package, with immense power, to fulfil all your Word Processing needs, and... with an integrated Database too! It's all so easy to use, you'll rarely need to refer to the extensive 250 page lay-flat spiral bound manual. Users frequently tell us that they've never found a program they get on with so well.



THE WORD PROCESSOR: You can... Open multiple documents simultaneously; search and replace; cut, copy and paste; check your spelling with a 110,000+ word dictionary; import your favourite IFF/HAM graphics, from programs such as DPaint, or Clip Art files in various sizes and colours; automatically flow text around graphics in any Workbench compatible font (there are over 200 available styles) in different sizes and colours to suit your design... Even as you type! Full Page View with position, edit and creation of graphic objects and extremely useful forms designer. All this from a word processor and... Much, Much, More! As you can see from the documents shown on the left, this is no ordinary program!

THE DATABASE: With 32 fields per record, 32,000 records per database and a fast sort of 1000 records in less than 5 seconds, this is a *real* database. Mail merging into the Word processor couldn't be simpler, with easy creation of templates for letters or reports, into which information can be merged.

AND... Remember, Pen Pal comes with full support for the new or experienced user completely free! Friendly help for all registered owners is just a phone call away.

SoftWood - Quality software for your Amiga

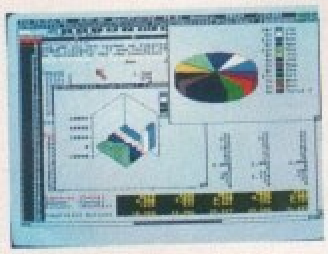
*With Pen Pal you're not just getting a one off product! SoftWood are acknowledged as the World's leading software company who develop **just** for Amiga and **no other** system. Once you're a registered SoftWood product owner your investment is protected as you'll have access to unlimited free technical support [others charge you] and preferential upgrades to other SoftWood titles, both existing and future. Exciting new products are being developed right now. Pen Pal - your first step on the SoftWood ladder of Amiga software*

Pen Pal is available from all good Amiga software Dealers or from SoftWood. Call for your list of stockists.

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Pen Pal is compatible with any Amiga from A500 to the latest A1200/A4000 ranges with a minim[um] of 1 Mb. available free mem[ory]

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Both upgrades require : Amiga 500, 500+, 600, 600 HD, 1000, 2000, or 3000, Workbench 1.3 or 2.0, 1 MB RAM (additional memory recommended). Two disk drives or hard disk recommended.

* Suggested retail price.

Noddy brings education fun

THE sequel to Amiga education program Noddy's Playtime is now well under development by The Jumping Bean Company and is due for release this summer.

Aimed at children up to seven years old, Noddy 2 takes a similar approach to that used in the successful Noddy's Playtime to give a feeling of uniformity between the two.

Eight activities are located around the north west area of Toyland, and each is linked through a driving menu similar to that used in the earlier version.

Noddy can pick up and drop down passengers as he drives around, and the package contains a wordprocessing utility.

This is aimed at helping youngsters to become familiar with serious applications and to teach story telling skills and basic spelling.



Busy days for Noddy in Toyland

Software sources

PROGRAMMERS are being sought by a group called the Central Licenceware Register, who are keen to introduce new software to their existing collection of Amiga titles.

With the support of public domain libraries from around the world, the CLR aim to promote high quality software at a price affordable to all Amiga users.

Already programmers who have developed commercial packages have joined, including Len Tucker, Jeff Tullin and Steve Bennett.

It is billed as the most widely supported licenseware scheme in Britain, with 18 authorised outlets. There are others in France, Canada and Australia.

Each title costs between £3.50 and £4.99 depending on how many disks are required, and of this £1 is paid to the programmer.

For more information contact Essex Computer Systems on 0268 553963.

DIARY DATES

16 to 20 September 1993
Live '93
Organiser: News International
(071-782 6000)
Venue: Olympia, London
A public consumer electronics show. Commodore plan to attend.

5 to 7 September 1993
European Computer Trade Show
Organiser: Blenheim
(081-742 2828)
Venue: Business Design Centre, London
A trade-only event where new games will be unveiled.

11 to 14 November 1993
Future Entertainment Show
(0225 442244)
Venue: Olympia, London
A multi-format computer and console show.

19 to 21 November 1993
International Computer Show
Organiser: Westminster Exhibitions
(081-549 3444)
Venue: Wembley, London
Discounted software and hardware plus product releases.

Overseas

3 to 6 June 1993
Summer CES
(010 1 202 457 8728)
Venue: Chicago, USA
A massive consumer electronics show with Commodore presence

● *If your company is organising a show relevant to the Amiga and it's not listed, let us know so we can include the information in the diary.*

Have a great holiday on us!

WITH a £3,000 promotion starting this month, there's never been a better time to take out a regular newsagent's order to *Amiga Computing*.

Not only does the order guarantee your copy of the complete Amiga magazine and its unrivalled CoverDisk, but also gives you the chance of winning a dream holiday.

The winner can travel alone, or even take the whole family – providing the total cost of the holiday comes to no more than £3,000.

Turn to page 84-85 for an order form and full competition details – but don't waste time, the promotion runs for just two months.

ADPro finds paint links

ANOTHER upgrade has been announced for ASDG's Art Department Professional, this time giving the package closer links with other Amiga applications.

Version 2.3 has complete support for the Video Toaster Framestore file format, and provides a direct link with Deluxe Paint AGA and OpalVision's 24-bit paint program.

It has a loader and saver which can read and write Framestores and, because it does not require a Video Toaster, it increases the processing options for those using Toaster images.

For example, Framestores can be directly manipulated by all machines on a network, including non-Toaster equipped machines.

The British supplier is Silica Systems who can be telephoned on 081-309 1111.

Pacman no more

Many of our readers will have noticed the Pacman game on April's CoverDisk and we would like to take this opportunity to state that Pacman is a trademark of Namco Inc.

Use of the trademark, which we freely acknowledge, was an oversight which we regret.

Our apologies go to Namco for any confusion this caused between the PD version on our disk and the original console and arcade game.

The AC team

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ART EDITORS Tym Lecky, Terry Thiele

NEWS EDITOR John Butters
PRODUCTION EDITOR Phil Morse
STAFF WRITERS Jonathon Maddock, Ben Styles

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Jan-June 1992

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CoverDisk Hotline
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Thursday, 2-5pm only

We regret Amiga Computing cannot offer technical help on a personal basis either by telephone or in writing. All reader enquiries should be submitted to the address in this panel for possible publication.

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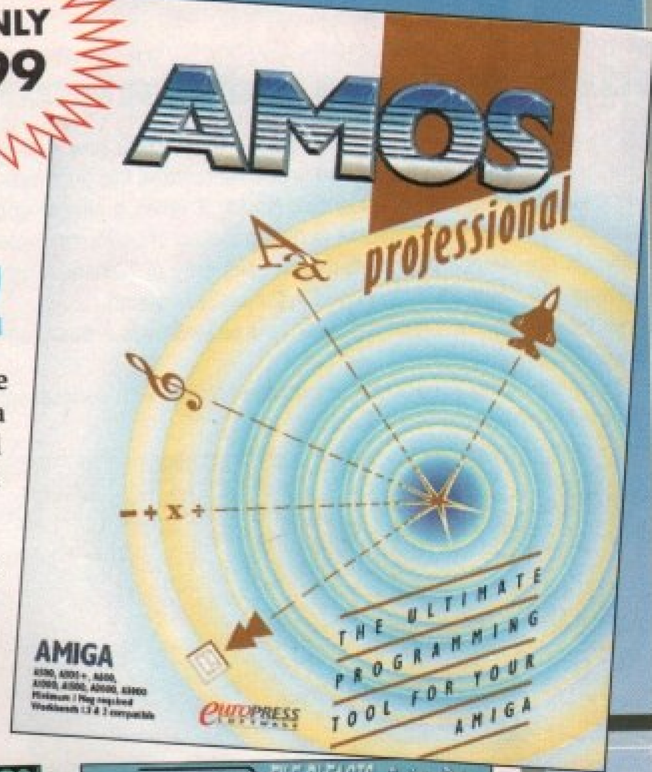
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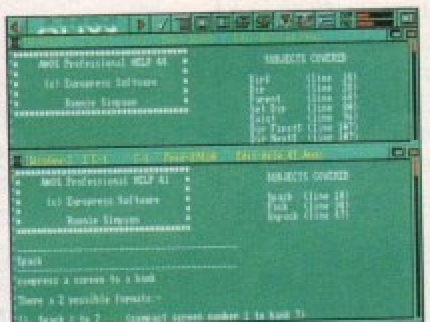
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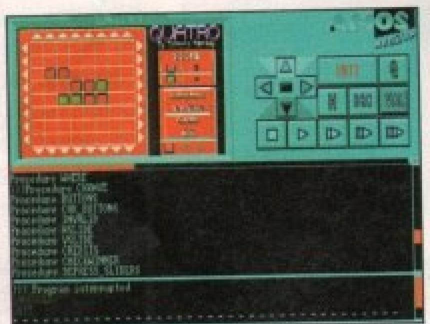


AMOS The Creator has brought programming within the reach of over 50,000 Amiga users. Now it has been given a complete overhaul and the result is a vastly enhanced product – AMOS Professional – designed for all experienced Amiga programmers.

AMOS Professional has 200 new commands, taking the total to over 700. Included in the package is a 650-page manual written by Mel Croucher who wrote the highly-praised Easy AMOS manual, and Stephen Hill who wrote the original AMOS manual. Programs written using earlier versions of AMOS and Easy AMOS can be loaded into AMOS Professional for amendment or enhancement.



Write programs with ease using the feature packed Editor



Track down problems fast in the advanced Monitor Mode



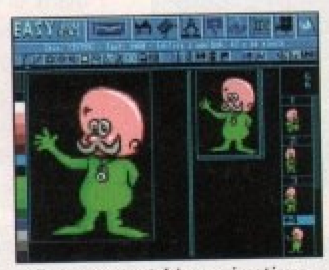
You can get serious too – File O' Facts shows just what's possible

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- MOUTH commands to link sprites to speech output from the SAY command to create a realistic talking head.
- Two discs crammed with working examples, and tutorials demonstrating AMAL, the new AMOS Interface system, collision detection and other key topics.
- A selection of new highly-finished programs, including Planet Zybex (a scrolling shoot 'em up), File O' Facts (electronic data organiser), Quatro (puzzle game) and Dithell's Wonderland (an eight-way scrolling platform game).

The result is a package which will more than satisfy home and professional AMOS users. It's fun to use, lots to learn – it's essential for the Amiga.

An easy introduction...

If you're a complete beginner to programming you can make your Amiga really work for you! Easy AMOS is a simplified, ultra-friendly version of the best-selling AMOS Basic programming language, and it will propel you into a fascinating world.

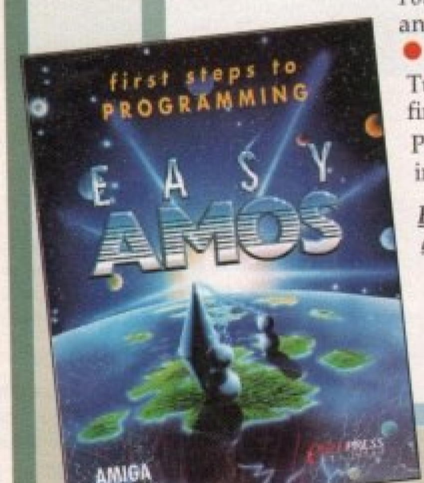


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the DISK

With this month's free database program, everything from addresses to sound samples and graphics can be brought together under one organising umbrella

Information explosion

Not as well known in this country as it deserves to be, Infofile comes to you courtesy of The Disc Company and is a product of the same stable that brought you Pen Pal, Final Copy, and Final Copy II.

It is unique in that it offers not only traditional database record keeping, but also the displaying of picture files and playing of sound samples. Combine this with the program's extreme ease of use and you have a database which offers something special.

The version found on this month's disk is complete in every way and identical to the Infofile found in shops except that there are fewer example databases included on our disk.

Once the main Infofile archive has been unpacked onto another floppy, users will have a complete auto-booting database program with enough space on the disk for a number of their own records.

Start the process by booting from the CoverDisk and double clicking on the AC61 disk icon, then on the Infofile icon. We've archived the contents of the original Infofile disk in order to fit it onto our own disk, so a window will appear and some text will warn you that you require a blank floppy.

Once you have confirmed that you wish to proceed, the process of formatting a disk then unpacking the archive onto it will begin.

This can take some time, but is the best and most reliable method we have found. It does, unfortunately, require 1Mb RAM, but as no Amiga has been sold with less than this amount for well over a year, there should be few problems. As soon as the Infofile disk is ready, reboot the Amiga and start the program.

Initially, the screen will be fairly blank, with a completely empty page which looks like a page of A4 ruled paper. We'll start to fill out the database by adding some columns, but first let's consider what kind of data we are going to store.

To keep track of, say, club membership levels complete with names, addresses, telephone numbers, and subscriptions paid, we will need six columns with the titles Surname, Forename, Address, Post Code, Phone and Subs.

Creating these one by one is easy, and a matter of simply selecting one of the define options from the Column menu.

Start with Define Data, which is used

Scala HVT

From Scala UK

The Scala HVT archive on this month's disk includes a fully functioning version of the package minus Save function and with a built-in limit of ten pages in each script. Within these limits, every reader should be able to set up his or her own presentation scripts and run them or use them with a genlock to overlay live video.

To prepare Scala HVT for use, you must go through the same process as used with Infofile by clicking on the Scala HVT icon and unpacking its contents to a fresh floppy.

Once the disk is ready and you have been given the finished message, reboot with the second floppy. A message concerning the demo will appear, shortly followed by the standard Workbench screen.

For a quick run through of some of Scala HVT's superb features, double click on the disk icon, then on the Scroll.script icon. This will load the player program, whose icon you can see in the disk window, and the Scroll.script itself which is a smooth and well presented set of titles for a typical home video. Once this has played a few times,



Scala's main control screen with a list of the pages in this script

hit the Esc key to jump back to Workbench and click on the Example.script icon. This is a very different script showing a few of Scala's wipes, scrolls, and special effects for use in presentations and rolling information screens.

One viewing of this and its companion script should be enough to whet any user's appetite, so let's quit out of the script and load up Scala HVT proper.

The main control screen is the first to appear, and is simply a list of screens, presently empty, with a number of buttons below it.

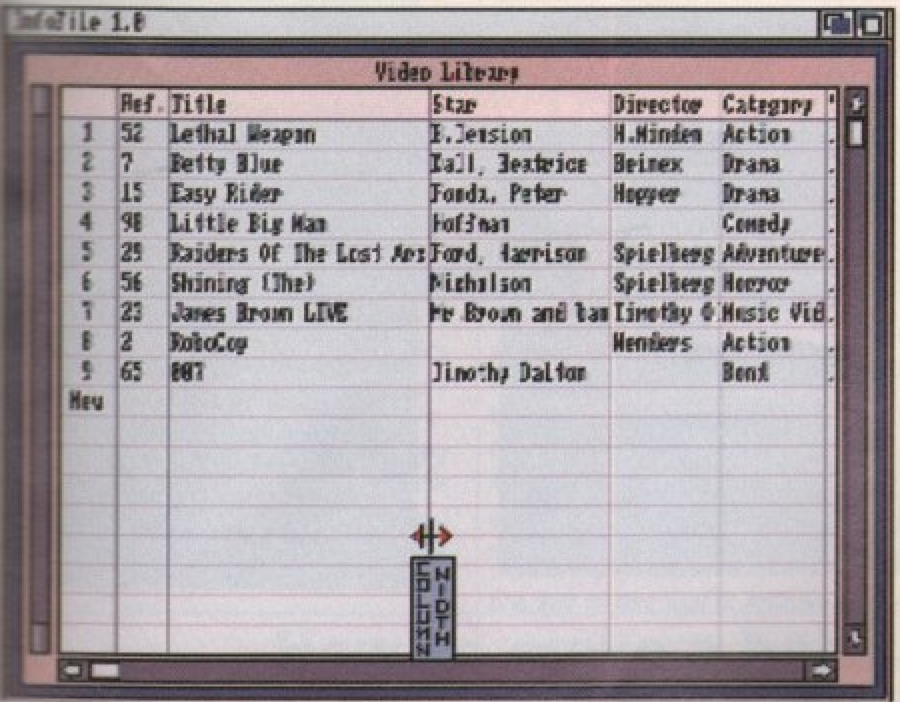
By clicking on these buttons, the user can load a script (though not save it in this demo version) run the script presently in memory, change, delete, show, or create a new page. Without a page to start with, we're stuck, so click on New to begin.

A requester appears asking the user to choose a background image for the page. This can be any IFF image supported by Scala HVT, but for now we'll stick with those supplied on disk.

Click on the Pictures directory, then on Test Picture, then on OK and our background – the familiar TV test card – should appear.

The bottom quarter of the screen will be obscured by a control panel, but the user can flick to a full screen view and back again by clicking the right mouse button. Here is where most of Scala's easy to use features are accessed, so take a close look at the page control panel.

Buttons exist for a wide variety of text effects, such as outline, 3D, italics and so on, but we must first add some text. Click anywhere in the upper window to acti



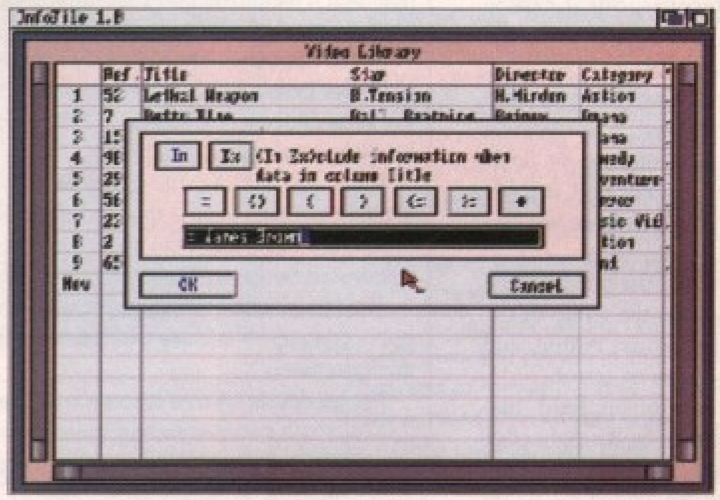
Infofile's list display offers easy access to records



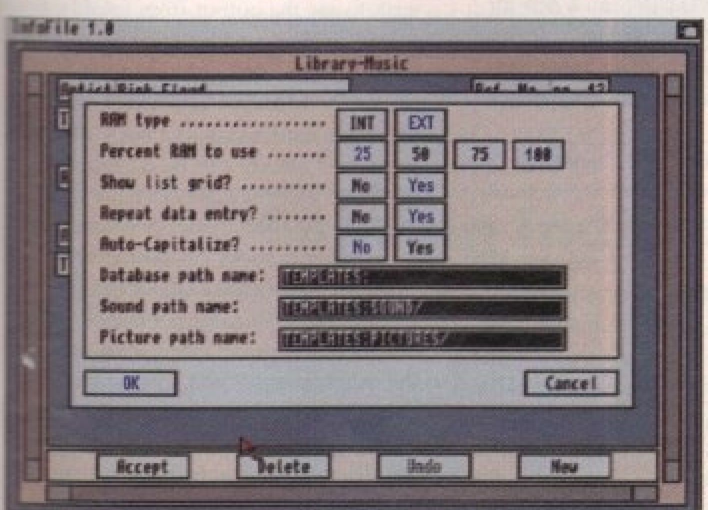
Print options enable the user to control final output

for most column types. When the option is selected a requester appears with a string gadget for the column name and a range of data types. The default type is text, so just type the word "Surname" in the column name string gadget and click on OK.

Infofile's screen display should now show a single narrow column. If the column appears either too narrow or too wide for the data it is expected to contain, its width can be altered by simply placing the mouse pointer on the right-hand margin, at which point a bi-directional pointer will appear which the user can use to drag



Search for data using a variety of Boolean operators



Choose your own default load/save paths using default routine paths

the margin in or out. Try this for yourself, then follow the same define data route to set up columns titled Forename, Address, Post Code, Phone, and Subs. Note that when the latter two are created, the data types chosen from the define data requester should be Phone and Amount respectively. When the columns have been added, it's time to add some data. Click on the New box in the left-hand margin and the screen should change to Infofile's form display showing our six data columns represented as fields. Entering data is a simple matter of typing it at the cursor then pressing the Tab key to jump to the next ➤

vate the text cursor, then type "Scala HVT wins first prize!". Notice the scrawny little font? By default, this will be FuturaC 22, so click on the font button and change it to size 32. You can choose another font completely or go for a larger size, but this will do for now.

Next, the text will still be in its original colour, so look at the top row of buttons. These are titled front, outline, shadow, and 3D respectively and are used to determine the four main text attributes. To change the text colour, choose from the colour bar just above our control panel, then click on the front box. A glowing yellow stands out well, so choose this colour to start with.

Now for outline, shadow and 3D. These are toggle buttons, none of which are active when text is first input, and when activated they have a sunken 3D look.

For this example we want a dark outline to make our text stand out from the cluttered background, so choose black as our outline colour and click on the outline box.

Our text now looks much better, doesn't it? You can experiment with the 3D and shadow features if you like to form an idea of how flexible Scala HVT can be, but yellow with a black outline works well in this context.

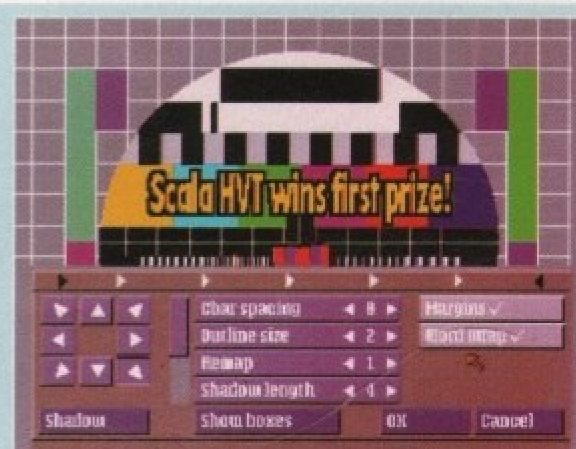
Chances are that though the text is now presentable, it's in an awkward place. If you clicked in a silly screen position initially and would like to move the text around, just click on the Move button.

The control panel will disappear and by just clicking on the text you can slide it around the screen to your heart's content.

A quick stab at the right mouse button takes us back to the control panel where a few more precise text formatting controls are available. Look at the middle row of buttons to the right of the font gadget and you should see six options, three each for justification and text style. For a neat finish, click on the text in the main window then on the centre justification button. Now to add ➤



Setting up any kind of wipe or effect is simple and quick



Screen options, such as length and direction of shadow, can enhance a page



field. Please note that because the repeat data entry option on the Options menu is selected, pressing the Return key will skip to the next record.

This is a useful feature when inputting a large number of names in the same field over a range of records, but it can be turned off for now if you prefer to use the Return key rather than Tab.

As the form view shows the data more or less as it will be printed, it is important that the user is happy with how the fields are organised, and to that end Infofile offers several incredibly easy to use formatting features.

For example, to alter the position of a record, simply click on the name of the field, hold down the mouse button, and drag it to its new position on-screen.

To change the size of the field, just place the mouse pointer on the right edge of the field boundary and drag it in a similar fashion to when we altered the width of columns in the list view.

Field names which are too long to fit in the boxes can be given more room by dragging the line separating them from the data area, but users should be aware that the names of fields will not be printed and are for on-screen use only.

Complete control of the printed area is possible through the print menu. Choose Print Options from this menu and a requester will appear containing a number of variables which can be set to alter the printed information.

The default setup is for a print area five lines high and 30 characters wide, multiple records on each page, and no labels, but by changing these values, the user can produce a wide variety of reports. For now, accept the defaults and click on OK, then select Page Setup from the same menu.

This requester enables the setting of the more usual print options, such as length of page, margins, draft/letter quality, pitch, and lines per inch. It is preset to the best values for an A4 page, so leave it alone and click OK.

At this point, printing a report is accomplished by selecting Print... To Printer for hard copy or Print... To Ascii File for a copy of the output on disk.

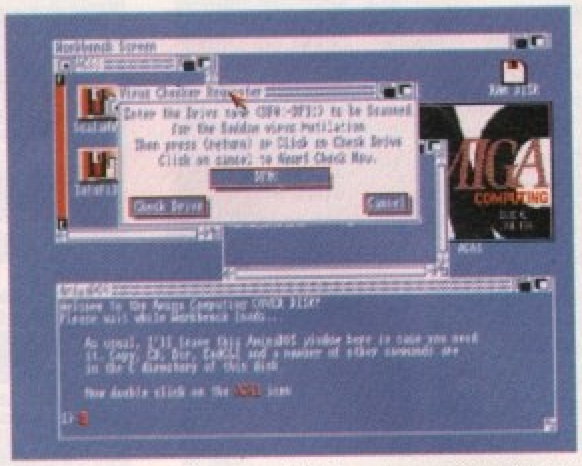
The latter option results in a file containing only those fields covered by Print Options being saved to the same directory as Infofile for later use as, say, a mail merge file.

If you have a printer connected and wish to see the output from Infofile, type a few names and addresses into the database we have just set up and print them. By adding a few extra columns between Address and Post Code, the town and county can be included for a complete address label, and the result is an impressive automatically generated list for printing to sticky labels or envelopes.

That's about all there's room for in this lightning tour of Infofile's basic features, but there are many more ways of using the program and many menu options we haven't covered. For full details on how to get your hands on the complete Infofile manual, see our special offer on page 30.

Virus Checker v6.22

Author: John Veldthuis



One of the most universally recognised virus killers in the business, Virus Checker has made several previous appearances on the *Amiga Computing* CoverDisk, and we make regular efforts to keep our readers up to date with the best system protection software.

Version 6.22 is the latest version at time of writing, so for those of you who have used this program before, just drag the relevant files from the CoverDisk to your system disk and carry on as usual.

Those new to Virus Checker will need a little more tuition, but not much more.

First, run the program by double clicking on its icon. A thin bar will appear on the Workbench screen and the CoverDisk will be automatically checked for viruses. Please note that if this is the first checker you've ever used, it is highly likely that you already have a virus.

In this case, the CoverDisk may already be infected, which means Virus Checker will alert you. Do not make the mistake, as so many have done in the past, of thinking that the virus originated on our disk! This happens every time we give away a checker and it's becoming tedious.

Right, rants aside, the CoverDisk should check out clean as a whistle and you should be able to access the menus. Click on the Virus Checker bar with the left mouse button, then hold down the right mouse button to reveal menu options to scan a disk for link viruses or damage caused by the Saddam virus, scan memory, and so on.

In addition, users of Workbench 2.04 or greater can click on the window zoom gadget to bring up an intuitive interface with more control over scanning options and default configuration.

For full details on how to use Virus Checker v6.22, see the on-disk documentation.

Faulty disk?

If you subscribe to *Amiga Computing* and your disk has been damaged in the post, please return it to:

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a bit of flourish. On the extreme left-hand side of the control panel is a blank box. Click on this and the wipes requester appears giving us access to the many effects which can be used to govern how objects are placed in Scala screens.

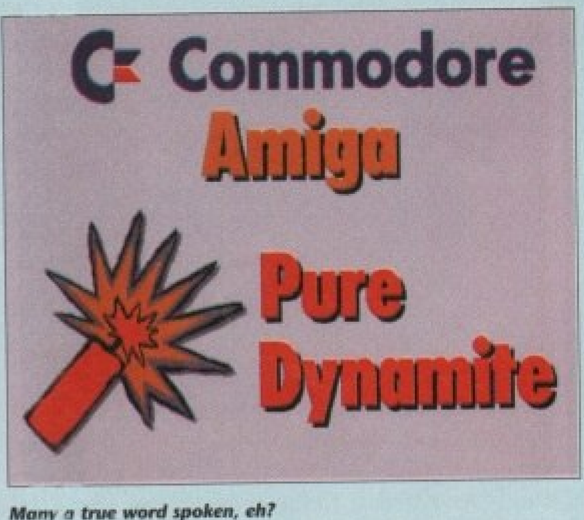
At the moment there is no designated effect, but we can quickly find one we like by clicking on each icon then choosing the Show option.

Personal favourites will vary from user to user, but some effects are obviously designed to be used on entire screens or very large brushes and so are inappropriate for lines of text. Once a suitable effect has been found, click on OK to return to the control panel.

We will now add a brush to the ensemble, so click on the Brush button and choose the Symbols drawer on your Scala HVT disk. Go into the Sports sub-directory and select the 1stPrize1 brush, then click on OK.

At first, the medal will be represented by a ghosted outline, so place it wherever you think best and click first the left then the right mouse buttons.

If you like, it is possible to add all the outline, shadow, and 3D effects to a brush as well as text, but for now we'll just add a wipe. Click again on the blank box to the far left and look in the wipe requester for the slide icons.



Many a true word spoken, eh?

These are the bold arrows pointing in eight different directions, and they indicate the direction in which our brush will slide (or scroll) into the screen. Choose any one you like and click on Show.

Nice, eh? To further customise our mini presentation, we'll add a second page. Go back to the page control panel and click on OK twice to return to the main screen, then on New to create the second page.

This can be any combination of background, text, and brushes, just so long as it comes after the first page. Its real purpose at the moment is to show the transition from one page to another, so experiment and produce your own page.

When the second page is ready and we're back at the main control screen, look carefully at the two columns on the right.

One shows the wipe to be used from one page to the next, the other the time taken between pages.

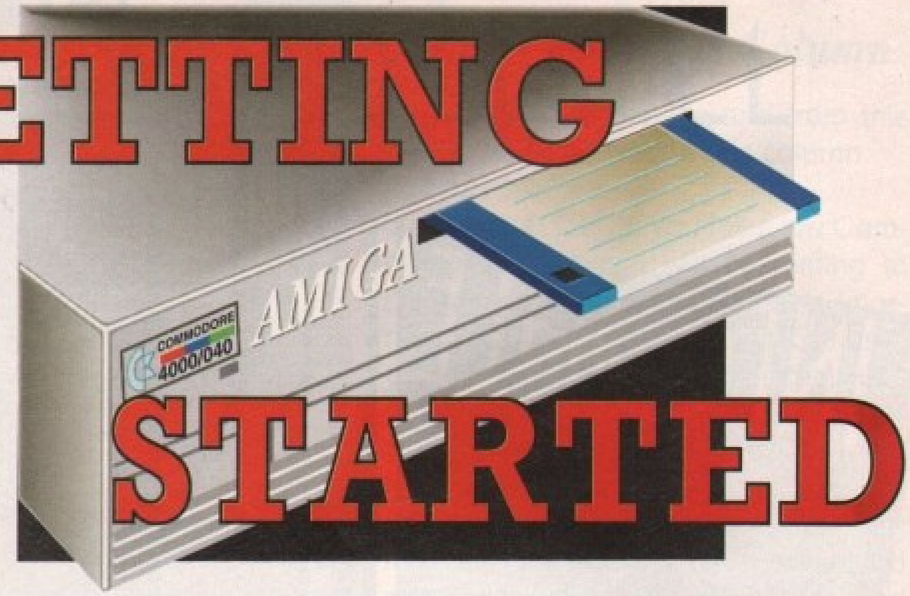
At the moment, both wipe boxes will show a blank, so click on page 2's box and add a suitably impressive wipe then click on the Run! button.

To vary things a bit, the wait boxes can be set to any number of seconds or to respond to mouse clicks. Experiment with these two columns to generate the best effects and most suitable transitions for your presentation or video titling effort.

After all, now that you know the basics of using Scala HVT, creating all sorts of scripts using brushes and images from a paint package should be child's play.

The *Amiga Computing* CoverDisk is designed to be as simple to use as possible. Follow these instructions and you'll be up and running in no time!

GETTING STARTED



New readers may have difficulties using our CoverDisk, so we have included this page to help you out.

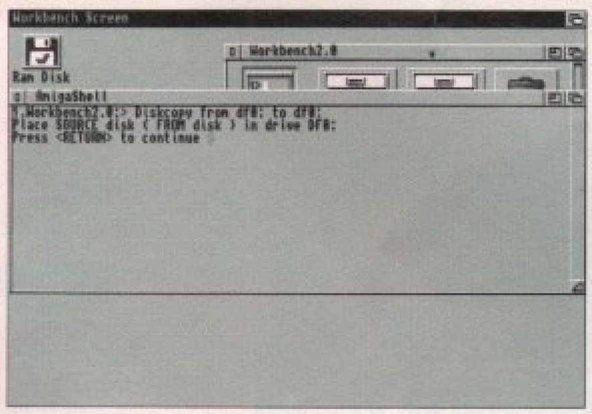
Below we explain how to copy files from one disk to another, how to copy the entire CoverDisk and how to de-archive programs. none of the first things you must do when get your CoverDisk is make a backup copy, then put the original CoverDisk away for safe keeping. As a rule you should also do this with the majority of your software collection.

How to make a backup

To copy the entire CoverDisk, load up your Workbench disk, then either click once on the CoverDisk icon and select Duplicate, or select Copy from the Workbench menu, or open CLI/Shell and type:

```
DISKCOPY FROM DF0: TO DF0:
```

When prompted, put your CoverDisk (the source disk) in df0: and be ready to replace it with your blank disk (the destination disk). Follow the Amiga's on-screen prompts until the disk copy is completed. Now put the original away in a safe place and use your backup.



Copying individual files

You might at some point want to copy a single program from a CoverDisk to your compilation, Workbench disk or even your hard drive.

To do this you'll need the COPY command. As most CoverDisk programs are stashed away in their own directories, the quickest way to copy a program is to copy the whole directory at once. Use the command:

```
COPY {directory} TO {newdisk} ALL
```

where {directory} is the full pathname of the directory you wish to copy, and {newdisk} is the name of the disk and directory into which it will be copied.

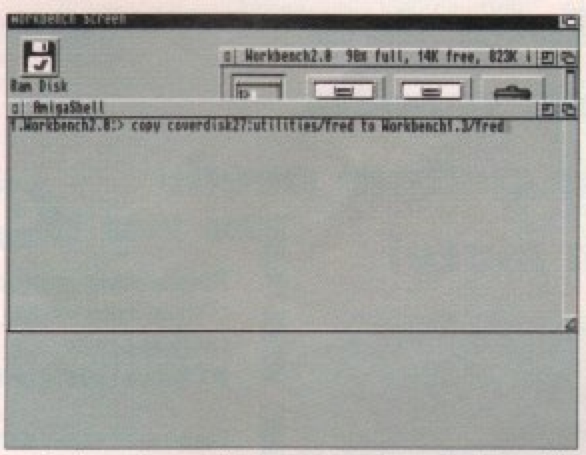
For example, if you wanted to copy a utility called FRED from CoverDisk 27's Utilities drawer to a directory called FRED on your Workbench disk, you'd type:

```
COPY COVERDISK27:UTILITIES/FRED TO WORKBENCH1.3/FRED ALL
```

Alternatively, you can click once on the FRED directory icon and drag it across to the new disk's window. This has the advantage of creating a new directory for you and copying the icon as well.

Once you have moved a particular program to where you require it you could experience some problems running the program. This is sometimes caused by the program not being able to find files which it needs to run.

A good example is the text files on the CoverDisk. These have been crunched using PowerPacker, so when you try to copy them to another disk and then try to read them you can't unless you have also copied the Powerpacker library into your LIBS drawer.



So if you have copied a program from the CoverDisk to your Work disk or hard drive make sure you also copy any other files the program requires, ie fonts, libraries, device drivers and Ccommands.

De-archiving

Occasionally we have so many programs to fit onto the CoverDisk that we have to archive them. Archiving is where we take the entire contents of a disk and compress them into one file which is much smaller, giving us space to fit more programs onto the disk.

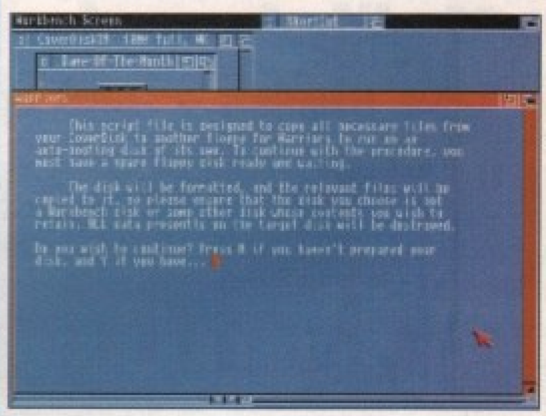
Dearchiving programs which are on the CoverDisk is a very simple task. If a program has been archived then you will need a blank disk to dearchive it onto.

Say we have archived a program called FRED. You simply double click on FRED's icon, and will be asked if you have a blank disk ready to dearchive to. Type "y" or "n" accordingly.

Your computer will then copy the archived file into its memory and ask you to insert your blank disk. It will proceed to format the disk, and will then de-crunch the archived file onto your blank disk.

Once this has been done you can simply reboot your machine with the disk which contains the dearchived program on it and then use the program as instructed in the CoverDisk pages.

Note that if you have a Workbench 2 or upward machine you must boot with the CoverDisk write-enabled to perform the dearchiving process.





Workbench 3

If you have a Workbench 3 machine, don't worry – most if not all of the programs on the CoverDisk will work on your machines.

If the program is specifically designed to work with Workbench 3 then you may have to copy the program to your hard drive or Workbench disk using the process described earlier on this page.

Make the most of INFOFILE



with this unbeatable manual offer!

Now that you have the super database management system, InfoFile – free on your Amiga Computing CoverDisk – make the most of our special manual offer. It's yours for only £9.95

The comprehensive 70-page manual will help you operate the more sophisticated and powerful data management features of the InfoFile system

It tells you how to:

- **Define a database** ● **Enter data**
- **Sort and search** ● **Print reports**
- **Modify forms for your custom needs**
- **Use views – and much more!**

InfoFile is capable of carrying out a huge number of data storage and retrieval tasks. To use it to the best of its potential, the manual contains detailed chapters on creating custom layouts, sorting and searching using Boolean search parameters, calculating across columns – and a lot more besides!

To take advantage of this great offer simply fill in the order form and send it to Profile International Ltd, Unit 10, Beaumont Business Centre, Beaumont Close, Banbury OX16 7TN.
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INDI DIRECT MAIL



INDI DIRECT MAIL PROUDLY PRESENTS THE *Jakki Brambles Column*

HI ,I'm Jakki Brambles and from this month on I'll be writing this column exclusively for INDI.

So knowing that all you folks are Commodore fanatics, I will be aiming to provide you with the best inside information on what's new in the Commodore world together with the latest hints and tips.

Since agreeing to write for INDI, I have been amazed at how big the Commodore market place is. INDI tell me that their sales desk has been swamped with orders for their Amiga 1200 hard disk offers.

Not surprising, when you consider that they are offering a product officially covered by Commodore maintenance through Wang UK.

Of course, you can buy a non standard Amiga with a dealers own warranty but thenCommodore do not give their approval with out a great deal of thought, I know what I'dprefer to buy.

Congratulations to David Pleasance on his appointment as General Manager at Commodore as he takes the helm from Kelly Sumner. David has been at Commodore for many years and has most recently been responsible for the developement of their business in the States.

Commodore tell me that the A1200 Comic Relief Pack has been a real success, thanks to all you generous Sleepwalker fans. Don't forget Commodore donate £10 on your behalf to the Comic Relief Fund for every Pack sold.

By now you will all know about the new Amiga 4000/030 and it's amazing capabilities but more about that next month, especially If I can get my hands on one before they are all gone!

What I need now is loads of feedback from you. Tell me about your Amiga and if you have any tips that may help others or problems that I can pass on.The best letter will be printed and the winner will receive a suitably excessive prize. All letters to *Jakki Brambles Column C/o INDI Direct Mail, 1 Ringway Ind. Estate, Eastern Ave. Lichfield, Staffs, Ws13 7SF.*

See You Next Month.
Kind Regards

Jakki Brambles

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The INDI sales team have been trained to take your order with the utmost care and efficiency. All stock offered for sale is held in stock, centrally at our group warehouse complex and is available for next day delivery, direct to your home or business. If at any time we are out of stock your money will not be banked until the product is available (a point worth checking should you feel tempted to purchase elsewhere).

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APR 29.8% WRITTEN QUOTATIONS AVAILABLE ON REQUEST

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AMIGA A1200



ALL NEW 32 - BIT AMIGA

COMIC RELIEF PACK.
The event may be over but the fund raising still goes on. If your looking for the latest in Am[...] technology then this is the starter pack for you. Based around the outstanding A1200, [...] pack also gives you sleepwalker, a most addictive platform game from ocean software. Yo[...] be pleased to know that every one of these packs purchased raises another £10 for Co[...] Relief.

A1200 STANDARD FEATURES.
- 68020 Processor.
- PCMCIA slot.
- 2MB ChipRAM.
- 3.5" Internal Drive.
- AA Chipset
- Built in TV modulator.
- Alpha numeric keypad.
- [?] Months at home maintenance

INDI PRICE

£379.99 or from **£14.47*** per month

*(Credit price based on 36 monthly payments APR 29.8%. Total repayment £520.92 and 90 day deferred payments.)

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OFFICIAL A1200 HD SYSTEMS
The Amiga 1200 supplied by INDI Direct Mail now includes the official (legal) Commodore installation disk and hard drive utility manual. Indi are the only official supplier of Amiga 1200 Hard Drive systems, that include the official software, documentation and on - site warranty

A1200 60 MEG HD — INDI PRICE £539.99
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INDI A1200 ACCESSORY PACK
Pack Contains:
- 3 Superb Games
- International Games Challenge
- The Cool Croc[...]
- Paradroid 90
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60/80 Hard Disk upgrades available on any A1200. Upgrade includes full Wang warranty on A1200 and Hard disks. Phone for a

AMIGA A4000



It's here - The new Amiga 4000/030

The NEW Amiga 4000/030 features a EC68030 processor running at an incredible 25Mhz, and upgradable at a later date to a faster processor. The 4000/030 has a powerful 4Mb of 32 - bit RAM (2Mb chip & 2Mb fast) expandable to 18 Mb using industry standard 32 - bit Simms module. In line with the Amiga flagship 4000/040 the 4000/030 features the new AGA graphics chipset, giving you a massive pallet of 16.8 million colours. A range of hard drive options are available form 80 - 240Mb and includes a SCSI option.

4000/030 80 Mb HD INDI PRICE £939.99
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4000/030 240 Mb HD (exclusive to INDI) **Phone for price**
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(exclusive to INDI) **Phone for price**

A full range of approved upgrades are available for the 4000 030, including additional memory modules, hard drives, PC bridge boards, FPU's (68881 & 68882) and the 24 - bit Opal vision graphics and video system.



COMMODORE 1960 MULTI - SYNC MONITOR

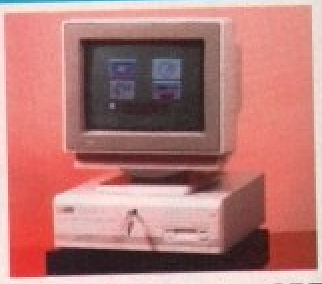
A 14" high resolution monitor for the use with A1500/A2000/A3000/A4000

INDI PRICE

£369.99
or
£351.99

if bought with an Amiga

Range of A1500's A3000's, A4000's available at amazing prices **phone for details**



Parnet Adaptor for CDTV

Connect a CDTV Player to any Amiga, and access[...] world of CD - ROM software.
The Parnet interface and software will allow the A[...] CDTV to be used as a CD - ROM drive with any Amiga[...] will give any Amiga owner access to the vast rang[...] CDTV software currently available.
The CDTV player offers excellent value for money [...] compared with a standard CD - ROM drive and inter[...] Most CD - ROM drives will set you back over £400 [...] CDTV will cost you less than £300 and will play [...] CD's in addition to CD - ROM / CDTV disk's
The Parnet adaptor includes the software driver for [...] Amiga, interface cable and PD disk with driver soft[...] for your CDTV player

INDI PRICE £39.9[...]

A4000/030 PLUS CDTV + 1960 MONITOR.
INDI PRICE £1599.99
CDTV + PARNET.
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AMIGA A600



THE WILD, THE WEIRD AND THE WICKED A600 is an ideal starter pack containing a considered mix of software, making the most of the Amigas amazing capabilities.

PACK CONTAINS:
- A600 Single Drive
- Built in TV Modulator
- 1 Mb Memory
- Pushover: Grandprix
- Silly Putty: Deluxe Paint III
- Mouse and Manuals

INDI PRICE £289.99

A600-SD A single drive Amiga for those of you requiring a basic A600 at a very competitive price.
PACK INCLUDES: A600 single drive, built in TV modulator, 1Mb memory. 12 Months at home service.
INDI VALUE ADDED FREE
- Kick Off 2
- Pipemania
- Space Ace
- Populous
- Microswitched joystick

INDI PRICE £239.99

A600 EPIC PACK (40 Mb HD) PACK INCLUDES:
A600 Hard Disks (20Mb) ● 1Mb Memory ● Epic ● Rome ● Myth ● Trivial Pursuit ● Amiga Text ● Deluxe Paint III ● 12 Months at home service.
PLUS INDI ACCESSORIES PACK AS LISTED. COMES WITH AN EXTRA 512K RAM EXPANSION FREE.

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INDI A600 ACCESSORY PACK (Featured with WWW)
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INDI PRICE £26.99

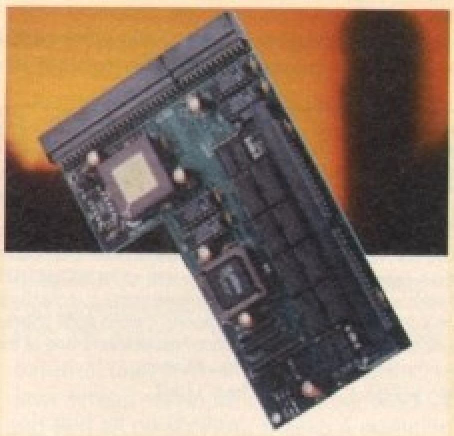
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AMIGA RECOMMENDED PERIPHERALS & ACCESSORIES

New from Microbotics for the A1200!!!. M1230XA Accelerator launch!!

Microbotics beats the competition on price, performance, features and configurations.INDI is very pleased to announce the availability of the new 68030 accelerator product for the A1200: the microbotics M1230 XA (call it the "XA" for short) 50 MHZ speed is standard! Memory management is standard! Huge 128 MB memory design is standard (the biggest memory space on any A1200 peripheral) Just look at these specifications and prices!

M1230 XA W/40 MHZ EC 030 OMB **INDI PRICE £299.99**
M1230 XA W/40 MHZ EC 030 4MB **INDI PRICE £399.99**
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The original and the best floating point unit and memory uppgrade for the Amiga A1200. Available with 0,4 0R 8 MB OF 32 BIT FAST RAM and a choice of floating point units. Now complete with real time clock (RTC)

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8 Up memory board. Again designed for the A1500/A200. Memory upgradable to 2/ 4 or 8MB
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Hard frame/ suitable for A1500/A2000. Allows for the interface of a SCSI hard drive.
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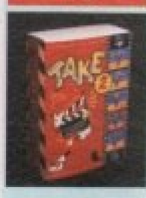
AUDIO VISUAL



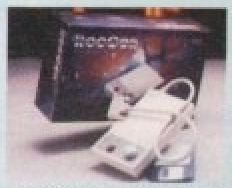
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VIDI AMIGA 12. THE ultimate low cost colour digitiser for the Amiga."The best value full colour digitiser on the market" AMIGA FORMAT.
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TAKE 2. Animation package is a must for computer artists and enthusiasts of all ages. As used in Rolf Harris Cartoon Club.
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Entry level Genlock for all Amigas. Record stunning Amiga Graphics onto Standard video or overlay text and graphics onto a video signal.
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As above but with extra features such as tinting and signal inversion. Allows for real time editing of graphics. Compatible with all Amigas.
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The ultimate accessory for Amiga / video fans. Separate RGB controls to croma key on any colour
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A total hand held scanning package for all Amigas complete with interface and software (mono)
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AMIGA PERIPHERALS.



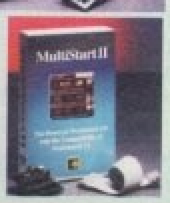
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ZAPPO 601. Trapdoor upgrade for the A600. 1MB with RTC
INDI PRICE £49.99

ZAPPO 601NC. As above only 512K no clock.**INDI PRICE £29.99**



MULTISTART ROMSHARER with kickstart V3.**INDI PRICE £44.99**

MUTISTART ROMSHARER. with kickstart V2.04 **INDI PRICE £49.99**

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ZAPPO EXTERNAL FLOPPY.
You've seen all the reviews on this popular and affordable second Amiga drive. Compatible with all Amigas. **INDI PRICE £59.99**
"Quality: 9 out of 10." Exceptional value for money. *AMIGA COMPUTING JAN 93*

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1084ST MONITOR.
Commodoresoriginal and best selling colour stereo monitor. Now includes swivel and tilt stand for total ease of use. **INDI PRICE £189.99**
(£179.99 If purchased with A600/A1200/A1500)

PRINTERS



COMMODORE MPS 1270A INK JET PRINTER.
Whisper quiet yet prints at an amaziing 160 CPS. Possibly the best value printer on the market.
INDI PRICE £94.99

1270A - REPLACEMENT INK JET CARTRIDGE.
INDI PRICE £12.99

COMMODORE MPS 1230 A high quality 9-pin Dot Matrix Printer with paper and tractor feed and is fully compatible with Epsom FX80 and IBM Industry standards. High speed 120 CPS draft mode and an NLQ mode of 25 CPS.



INDI VALUE ADDED FREE

D-PRINT - Design greetings cards, letters and posters.**AMIGA LOGO**- Educational and programming language.**AMIGA VISION**- Multimedia Authoring system for video, animation, sound, speech, graphics and text.

INDI PRICE £134.99

TERMS AVAILABLE OVER 6, 12, 18, 24 & 36 MONTHS SUBJECT TO STATUS. WHY NOT RING FOR A QUOTE. SAMEDAY RESPONSE. (SEE EXAMPLE)

Panasonic *Quiet Colour Printing*

We researched the colour printer market at great depth to find a colour printer good enough to cope with Amiga's powerful graphic output, yet at an affordable price.
We found the perfect printer in the KX-P2180 + KX-P2123 quiet printers.
We then considered that if you were going to buy a Panasonic printer you would probably need a quality word processing package to use with it. We found that too, with 'Wordworth', yet at a retail price of £129.99 we thought that might be a little too expensive on top of your printer purchase! So together with Panasonic we decided to give a copy of 'Wordworth' free with every Panasonic printer. How's that for added value?

Panasonic KX-P2180



***WORDWORTH COMPLETELY FREE! WITH PANASONIC QUIET PRINTERS** The writers choice. The ultimate word processor for AMIGA computers. Wordworth is undoubtedly the ultimate word/ document processor for the full range of AMIGA computers. The graphical nature of WORDWORTH makes producing documents faster and easier, with the enhanced printing fonts (including full Panasonic KX P2180 + KX P2123 colour printing support), Collins spell checker and thesaurus, no other word processor comes close. "Without doubt this is one of the best document processors for the AMIGA, Today"(Amiga Format)
NORMAL RRP £129.99 inc VAT

INDI PRICE £199.99

The new Panasonic KX - P2180 9 pin quiet colour printer. Produces crisp clear text in mono or in 7 glorious colours with new quiet technology. The new KX - P2180 is typically 15dBA quiet er in operation, than the competition.

- **Fast Printing Speeds** 192CPS Draft and 38 CPS NLQ
- **Colour Printing** 7 colour palette (blue, red, green, yellow, violet, magenta and black)
- **Quiet Printing** Super quiet 45 - 48dBA sound level (most matrix printers are typically in excess of 60dBA)
- **6 Resident Fonts** Over 6,100 type styles using Courier Prestige, Bold PS, Roman, Script and Sans Serif Fonts
- **3 Paper Paths** Paper handling from bottom, top and rear for total flexibility
- **1 Year warranty** for total peace of mind.

Panasonic KX- P2123



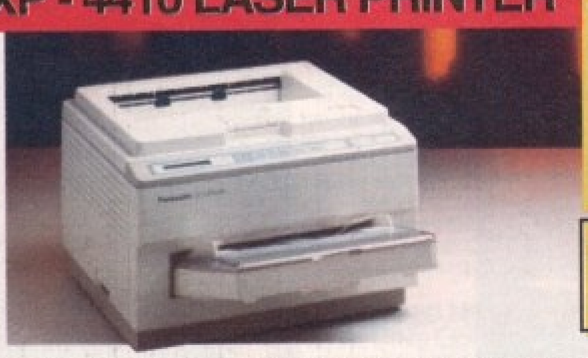
INDI PRICE £239.99

The new high performance Panasonic KX - 2123 24 pin. Quiet colour printer offers leading edge quiet printing technology at an affordable price.

- **Fast Printing Speeds** 192 CPS draft, 64 CPS LQ and 32 SLQ.
- **Colour Printing** 7 colour palette (blue, red, green, yellow, violet, magenta and black)
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- **7 Resident Fonts** Over 152,000 type styles using Super LQ, Courier Prestige, Bold PS, Roman, Script, and Sans Serif Fonts
- **24 PIN Diamond Printhead** High performance and high quality output
- **1 Year Warranty** for total peace of mind.

Panasonic LASER PRINTER

KXP - 4410 LASER PRINTER





WORDWORTH COMPLETELY FREE! WITH PANASONIC LASER PRINTERS The writers' choice. The ultimate word processor for AMIGA computers. NORMAL RRP £129.99 inc. VAT

KXP - 4430 LASER PRINTER



Once again INDI have joined together with Panasonic to offer all Amiga owners the most outstanding Laser Printer offer ever. We are now able to offer high quality, professional laser printing at affordable prices. We are also giving away a free copy of Wordworth with every Panasonic Laser Printer purchased (RRP £129.99). Whether you are looking for a laser printer to handle word processing, DTP, presentation or complex graphic applications - the Panasonic range offers you the power to meet your requirements.

KXP - 4410

- 5 pages per minute
- 28 resident fonts
- Optional 2nd input bin (total printer capacity 2 x 200 sheets)
- Low running costs
- Parallel interface
- Optional memory expansion to 4.5 Mb (0.5 Mb as standard)
- HP laserjet II Emulation

INDI PRICE £499.99 inc. VAT

WORDWORTH COMPLETELY FREE WITH LASER PRINTERS

Panasonic 2 YEAR ON-SITE WARRANTY

KXP - 4430

- Satinprint (optimum resolution technology)*
- 5 pages per minute
- HP Laserjet III Emulation, PCL 5
- 8 Scalable fonts & 28 bitmap functions
- Optional 2nd input bin (total printer capacity 2 x 200 sheets)
- Optional memory expansion to 5.0 Mb (1 Mb as standard)

INDI PRICE £699.99 inc. VAT

*(Satinprinters use optimum resolution technology to produce truly outstanding print quality. This software technique smooths away traditional jagged edges on curved characters and lines by varying the printed dot size and position).

WORDWORTH COMPLETELY FREE WITH LASER PRINTERS

Panasonic PRINTER ACCESSORIES



1) PANASONIC AUTOMATIC SHEET FEEDER
Automatic Sheet Feeder for KXP 2180/ KXP 2123 holds 80 A4 sheets. **INDI PRICE £89.99**

2) PRINTER DUST COVER
Specially tailored quality dust cover for Panasonic KXP 2180/ KXP2123 printer. **INDI PRICE £8.99**

3) PRINTER STAND
2 piece printer stand. **INDI PRICE £9.99**

4) PAPER PACK
500 sheets quality A4 paper. **INDI PRICE £9.99**

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2000 sheets 1 part listing paper. **INDI PRICE £19.99**

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To be used when connecting Amiga to Panasonic Printers. **INDI PRICE £8.99** (£5.99 if purchased with a printer)

7) PANASONIC COLOUR RIBBON
Colour ribbon for KXP 2180/ KXP 2123. **INDI PRICE £18.99**

8) PANASONIC BLACK RIBBON
Black ribbon for KXP 2180/ KXP 2123. **INDI PRICE £9.99**

SAVE £££££'s ON THE FOLLOWING ACCESSORY PACKS

PACK 1
PANASONIC COLOUR RIBBON PACK
Contains 6 colour ribbons for the KXP 2180/ KXP2123 RRP £119.99. **INDI PRICE £89.99** SAVE £30.00!!!

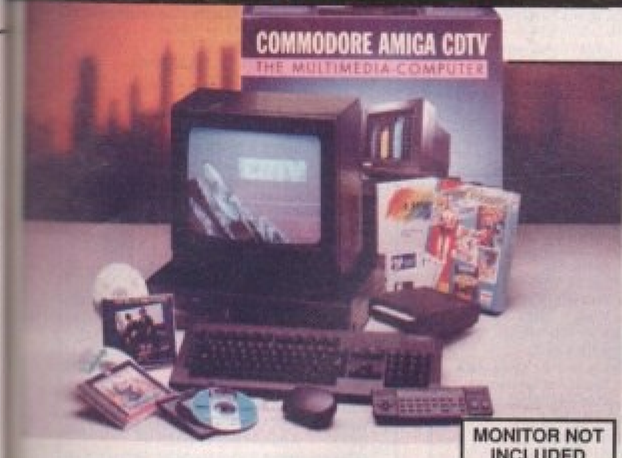
PACK 2
PANASONIC RIBBON PACK
Contains 2 black and 4 colour ribbons for KXP 2180/ KXP 2123. RRP £99.99. **INDI PRICE £69.99** SAVE £30.00!!!

PACK 3
PANASONIC DELUXE ACCESSORY PACK
Contains Automatic Sheet Feeder, 2 black ribbons, 2 colour ribbons, 1 dust cover, 2 piece printer stand. RRP £169.99 **INDI PRICE £139.99** SAVE £30.00!!!

Add £2.50 carriage to all printer accessories or combinations thereof

12 MONTHS INTEREST FREE CREDIT AVAILABLE ON CDTV EXTERNAL HARD DISK SUBJECT TO STATUS. LOW INTEREST CREDIT AVAILABLE ON ALL ORDERS OVER £200

AMIGA CDTV THE MULTIMEDIA COMPUTER TOTAL HOME ENTERTAINMENT SYSTEM



MONITOR NOT INCLUDED



The problem with any new product is that it always takes time for everyone to realise its full potential. CDTV is no exception and in our opinion everything we have read does a pretty poor job of explaining just what CDTV can do and why it is so exciting,

THE INDI GUIDE TO CDTV

IT'S A CD PLAYER - Yes, it will play all your Primal Scream, Pavarotti, Pink Floyd and any other CD you care to mention in superb high quality stereo, with infra red remote control.

IT'S AN AMIGA - Plug in the keyboard, switch on the external disk drive and the colossal range of inexpensive Amiga software can be used on CDTV.

IT'S A MULTIMEDIA SYSTEM - Just imagine, stereo sound, images and text all on screen . It asks a question, you respond, it responds - truly interactive! Each CD disc holds hundreds of megabytes of data with instant optical access. The whole of Hutchinson's Encyclopeadia fits onto one disc. This interactive system is a unique aid for Education, Business or Leisure.The future is here!

PACK CONTENTS AS STANDARD • Amiga CDTV Player • CDTV keyboard • CDTV 1411 3.5" Disc Drive • CDTV Infra red remote controller • CDTV wired mouse • CDTV Welcome Disc • Manuals Fred Fish CDTV Disc

INDI VALUE ADDED FREE • Lemmings CDTV (£34.99) • Blues Brothers (£12.99) • Pipemania, Populous, Kickoff 2, Space Ace

INDI VALUE ADDED FREE

INDI PRICE £399.99

CDTV CONNECTS DIRECTLY TO YOUR TV SET

AMIGA CDTV ACCESSORIES



THE BRICK - ETTE Just plug in the Brick - ette and use any wired Amiga compatible joystick, mouse or trackball device on the Commodore CDTV. The built - in 8 - bit Micro Processor gives the Brick - ette big smarts in a tiny package and makes it easy to use just plug into the remote port and it is ready to go with real time mouse or joystick movement on your CDTV. No loading of driver programs or software. No switches for mouse or joystick. Special settings (with mouse) allow you to blast away with three rapid fire modes & dual fire buttons. Comes complete with Python Micro Switched Joystick.

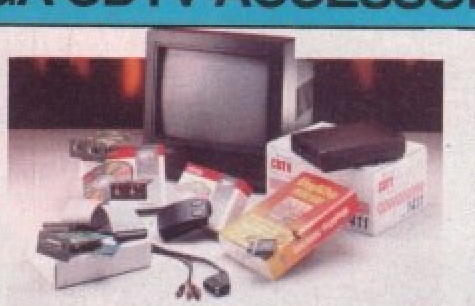
INDI EXCLUSIVE £49.99

With two joysticks **£59.99**



BLACK 1084S MONITOR At last the CDTVMonitor you have been waiting for. The original and best sellingcolour/stereo monitor from Commodore is now available in black to complement your CDTV.**INDI PRICE £189.99**

(or £179.99 when purchased with CDTV Multi-Media pack).



If you are thinking of buying CDTV or already own one you'll be pleased to know that INDI stock all CDTV accessories and software that are available from manufacturers. We believe in CDTV and we therefore continue to support this exciting product. You will always have a source of product for your CDTV from INDI.

L to R:

Item	Price
CDTV Encore SCSI Controller + Internal Mount	£109.99
CDTV Internal Genlock	£149.99
Black 1084S Colour Stereo Monitor	£189.99
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B979	DR MARIO Is simply another Tetris type clone but contains really impressive graphics.
C001	DONKEY KONG (not A1200) Another classic from the arcades in the olden days.
C041	ASI CARD GAMES A large collection of quality card games, inc solitaire, blackjack et.c
C046	MARIO'S WONDERLAND Mario if finally on the Amiga, very similar to the quite famous character.
C083	SOLITAIRE One of the best versions available.
C180-2	TRACON II (2 disks) A multi-player air traffic control simulator. Brilliant stuff.
C267	GIGA-TETRIS Classy new version of Tetris.
C235	FIGHTING WARRIORS If Street Fighter costs a little to much for you, then get a copy of this great beat em up.
C268-2	IRON CLADS (2 disks) The game of surface Naval combat.
C275	OUCH! Remember the game at the sea-side where you've got to belt as many moles over the head as you can in the shortest time. This is it.
C278	ROUCH MOTEL Is an original fun platformer.
C280	SPLASH. (BATTLESHIPS) An addictive battleships game.
C203	THRUST
C206	MORIA V5.4 (RPG)
C146	ERIK THE WARRIOR Help Erik on his quest in this Guantlet rip off. made in SEUCK.
C152	CLI-TRIS Another superb Tetris.
C049	ROULETTE
B822	THINK TWICE
B836	KAMAKAZI CHESS
B843	FULL HOUSE POKER Brill.
B907	OTHELLO

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C148	TOGGLE CLICK FOR A1200 Can disable that annoying click made from the drive click...click...click...
C149	NEW DIR V1.0
C151	TEXT ENGINE V4 We class this as our all time best PD wordproc.
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B932-2	THE KING FISHER (2 disks) Another interesting animation by Roddy.
B954	DOLPHIN DREAMS
C051-3	THE NEW Batman (3 disks)
B825-5	ODDYSEY (5 disks)
B892	DUNCAN THE DUNG BEAT
B939	NIGHTY KNIGHT NORMAN
C088-3	THE AD (3meg, 3 disks)
C089	ANARCHY IN THE kitchen
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C094-2	ROAD HOG (2 disks)
C095-2	LSD "TOTAL CHAOS"
C087-2	JESUS ON E's (2 disks) Another superb rave demo that needs 2 disk drives to run. Very long...
C117-2	A time traveller 3 disks, 3 meg.
C132	CRAZEE GLOO ANIM
C133-5	DUNCANS BACK (4 meg)
C139	STAR WARS 2 (2 meg)
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C145	SPACED OUT 2
C157	OWL MAN ANIM Comical animation of a 2bit hero.
C158	DIGITAL CHAMELEON
C162	SANITY "W.O.C. DEMO" Mega fantastic visuals, and an amazing soundtrack, Collect demo's? Get this.
C165	RAGING HOREMONE II
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C257	DONK (DONG DEMO) A demo version of the Hidden's DONG game which unfortunately has had it's name recently changed to DONK!

LATEST

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C242	ASSASSINS GAMES 42
C243	ASSASSINS GAMES 43
C244	ASSASSINS GAMES 44
C245	ASSASSINS GAMES 45
C246	ASSASSINS GAMES 46
C247	ASSASSINS GAMES 47
C248	ASSASSINS GAMES 48
C249	ASSASSINS GAMES 49
C250	ASSASSINS GAMES 50
C251	ASSASSINS GAMES 51
C252	ASSASSINS GAMES 52
C253	ASSASSINS GAMES 53
C254	ASSASSINS GAMES 54
C033	DYNAMITE PRINTER DRVS A huge collection of printer drivers, from Canon to Star to HP Deskjet.
C054	POOLS TOOLS
C057	RELOKICK 1.3
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C179	ASSASSINS GAMES 45
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C170	SAS UTILITY Collection 2
C171-2	FANTASIA MUSIC 2 disks
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C174	OBLIVION (defender clone)
C175	UCHESS AGA (A1200/A4000)
C211-5	WEIRD Science AGA ART
C216-9	JPEG AGA IMAGES 1
C225-6	SUPER HAM PICTURES
C231	TRONI-CAD (electronics)
C255	VIEWTEK 1.03
C256	FREE PAINT REVISION 37
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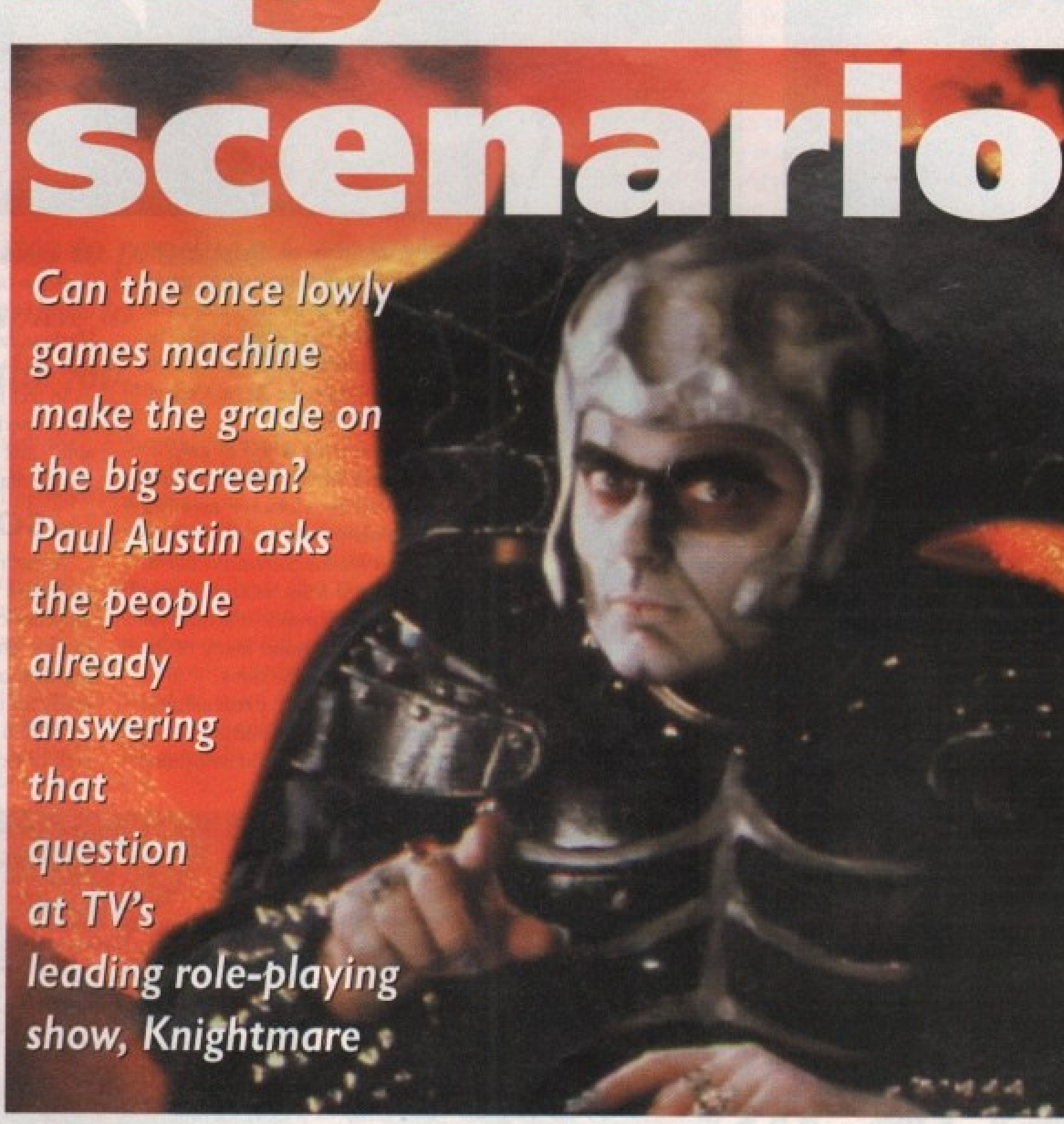
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Knightmare scenario



Can the once lowly games machine make the grade on the big screen? Paul Austin asks the people already answering that question at TV's leading role-playing show, Knightmare

Thanks to the unrivalled success of the Amiga games market, it's been a long hard slog for the Amiga to gain any reputation as a serious machine – even though hardware like the A4000 can literally outperform any PC on the market when it comes to graphics and general multimedia.

You only need to mention the word Amiga to the average technologically-illiterate media pseud to see the bigoted aftermath of the games years seeping from every spritzer-soaked pore.

Thankfully some of the industry's more forward-thinking companies are finally seeing the light and beginning to let the Amiga play a leading role in their productions.

At the forefront of this new wave come Broadsword Television Productions, the creators of Knightmare, Cyberzone, and Timebusters – the UK's leading virtual reality and adventure game shows.

Before delving into the technicalities of production I spoke to the creator of Knightmare, and Broadsword's leading light, Mr Tim Child.

Although 46 years young, Tim still proudly claims to be a games player at heart, and in fact it's exactly his interest in games and computers in general that inspired the creation of Knightmare and indeed many of the other VR games shows in the Broadsword stable.

Although firmly entrenched in the TV establishment, Tim was once a member of the oldest profession in the world – yes folks, a journalist!

And it was during these formative years as a news hound that he first came into contact with the newly emerging games scene.

Way back when the Amiga was merely a twinkle in the eyes of a bunch of Californian hippies, Tim was happily blasting baddies with the best of 'em, courtesy of a complete collection of early micros.

Although I'm painting a classic picture of a games junkie, Tim's interest in the finer things wasn't merely for fun. In fact he was one of the first people ever to grace the small screen as the Dominic Diamond of his day – admittedly a slightly insulting comparison, but thanks to these early exploits as a TV games presenter or reviewer the seed was sown for the VR TV shows of now.

Aside from simply enjoying the newly-emerging games genre as a competitor and presenter, the underlying narrative within such classics as Manic Miner screamed out to be taken a stage further, thereby providing a whole new strain of TV show for the ever-eager video kids of today.

VR EXPLOSION

Although heading for its seventh season, Knightmare was by no means the first VR show to hit the small screen. Back in 1989 Tim initialised the VR explosion with a forerunner entitled The Satellite Game which appeared on the now defunct BSB network. Unlike the very latest Broadsword productions, The Satellite Game was almost entirely Amiga generated, taking advantage of an accelerated Amiga 2000 in concert with designer software from Freescape – a duet which combined to complete the illusion of a futuristic version of the familiar Dungeons & Dragons scenario.

Although slightly out-gunned by the more technically advanced shows of today, this now long-forgotten show will always hold the title of the world's first VR games show – and mark Tim's first steps on the road to a virtual success story.

With the history lesson complete, it's safe to move on to the creation of the show itself. As you may have already guessed, the programme is by no means an Amiga-only production – in fact the Amiga element is combined with high-end dedicated graphics hardware such as Matisse and Silicon Graphics machines.

Due to the format of the show, everything involved is very much part of a layering process with the aforementioned dedicated graphics systems providing the 24-bit backdrop while the Amiga produces the live foreground imagery such as scrolls, minor monsters, quest objects and so on. Amid the growing digital chaos comes the travelling human contestant, sandwiched within a sea of computer graphics. Of course in the studio our pre-pubescent hero is merely stumbling around on a plain blue background onto which the various effects are applied via an advanced chroma-keying system which can even generate shadows on the imaginary backdrop.

On the Amiga side things are slightly simpler with the resident A2000 being plugged directly into a genlock housed in the studio's edit suite. Then the various ➤









The battle for the virtual world begins as the Amiga and PC slug it out for supremacy on the small screen

➤

scrolls, trolls and assorted graphics are applied in real-time.

Tim stressed that the game must remain exactly that – a game, in which the contestants can really become immersed – otherwise no matter how much technology was thrown at the screen, the kids would destroy the illusion with indifference when forced to hang around for hours between takes slowing losing the "Alice in Wonderland" feeling that makes virtual reality so appealing.

Due to this need to maintain the illusion, the Amiga is the perfect tool for real-time changes inspired by the actions of the contenders. If instant alterations are called for they can be edited from existing material on disk or, if necessary, generated afresh by the program's resident Amiga artist Jan Thwaites.

In order to discover more about the Amiga graphics involved, I approached the voluptuous Miss Thwaites with a few probing questions about her past experience, graphic creations and involvement in the wacky world of broadcast TV.

In the best traditions of Amiga graphics, Jan started her career generating game graphics, but this was by no means the beginning of her artistic exploits. Originally she followed the classic artistic route of art school then the Royal College of Art.

On entering the wide world of graphic art, the inevitable letterheads and logos ensued, followed by a chance meeting with the aforementioned Mr Child who through various means convinced her to join the Broadsword team as an in-house graphic designer responsible not only for the Amiga elements but also many of the real world props seen in the show.

As is the norm with professional Amiga artists, I was fully expecting a long list of expensive hardware and associated software to be quoted when the inevitable question of kit was asked. However, much to my surprise there was no mention of Harlequins, ADPro or in fact anything of that ilk.

In fact Jan creates all the Amiga graphics on perhaps the lowliest setup imaginable – just a bog standard A500 along with the inevitable copy of DPaint.

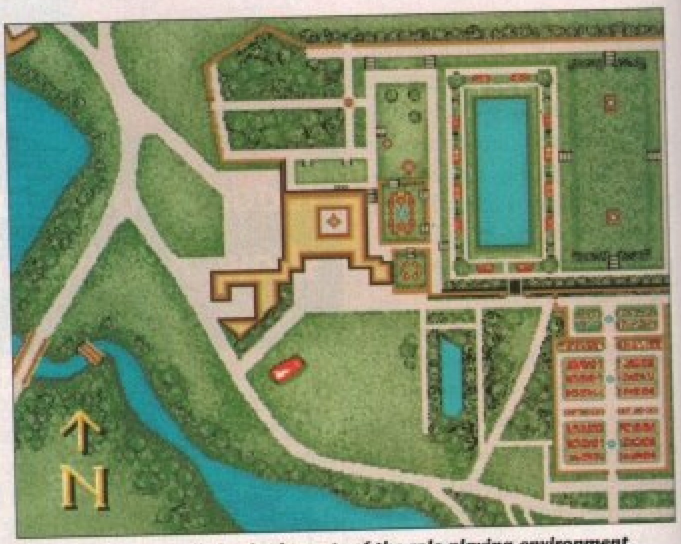
SOLID TALENT

Amazingly enough there isn't even a hard disk on hand, and as a result all the graphics created for the show are ported to the studios on floppies and then installed on the edit suite's resident A2000 ready for incorporation into the action.

Although quaintly old-fashioned, the lack of expensive hardware only goes to



Game graphics becoming an even more familiar feature on TV



Maps and mazes, all classic elements of the role playing environment

Amigas in the business...

Although Knightmare is one of the most innovative applications of the Amiga in television, it's by no means the only one. In fact a whole host of well known shows employ the machine at the heart of their videographic systems.

Catch Phrase

Catch Phrase, the ubiquitous graphical guessing game hosted by Mr genial himself, Roy "It's gooode bud it's not right" Walker, is almost certainly the most Amiga-intensive show around, with literally every animation used emanating from the bowels of a bank of networked A2000s.

Due to the number of anims required, all of the animated creations are fairly bog standard DPaint jobs running at around 15 frames per second.

Obviously with hundreds of individual anims going into every series, stretching the machine to its graphic limits would be too time-consuming and expensive to contemplate within the commercial constraints of broadcast TV.

However even under such restrictions, Catch Phrase still manages to be one of the most popular games shows in the business, once again stamping the Amiga's authority as the most flexible, affordable and creative computing formats around.

Catchword

According to our illustrious editor, the Amiga's influence isn't restricted south of the border, thanks to Catchword, which although similar in name to Catch Phrase, was in fact a slightly more cerebral Celtic game show.

Unlike many of its contemporaries, Catchword employed the Amiga on a much higher graphic level, with ray-traced graphics running in real time with the assistance of a Harlequin 32-bit board, and dedicated titling to boot. The titles were all Amiga generated via a custom package while the ray-traced elements appeared courtesy of Real3D. In short, almost the entire graphic output of a commercial TV show from what many still consider a games machine.

The Chart Show

Although a link between Knightmare and one of the UK's leading music shows may seem a little tenuous, they both share a similar mixture of dedicated graphics hardware and Amiga imagery.

In a similar vein to Knightmare, the Amiga element takes the form of foreground graphics that appear in the form of icons from which specific information on the artist in question is revealed.

Although very reminiscent of the normal Amiga environment, the actual interface is a custom-built software package designed specifically for the show.

prove that no matter how high profile a project may be, nothing – not even state-of-the-art software – can replace solid, no-nonsense talent.

This seemingly idyllic production process may sound pretty straightforward but nothing is ever that simple, and in fact Jan spends the entire four weeks of the Knightmare shoot on hand in the studio ready to generate fitting graphics for the ever-evolving plot.

Obviously much of the groundwork can be done beforehand, such as empty scrolls and assorted treasures, but when needs dictate Jan can be given as little as five minutes to produce a graphic to suit an unforeseen twist in the plot.

Jan can be given as little as five minutes to produce a graphic to suit the job...

After the revelation surrounding the lowly beginnings of many of Knightmare's graphics, the obvious question was when – if at all – will the new AGA graphics available on the A4000/040/030 and 1200 make their way onto the silver screen?

Not surprisingly Tim already has an A1200 and is busy experimenting with its inclusion into Knightmare – and indeed new shows – already in the pipeline, but for now at least, old-style graphics will suffice.

With the apparent profusion of expensive dedicated graphics systems already playing a major role in the show the question had to be asked: Why use the Amiga at all?

Not surprisingly one of the main factors in the Amiga's favour is cost. With the average Matisse or Silicon Graphics workstation approaching and indeed passing the £70,000 mark, a couple of hundred for a standard Amiga obviously has its benefits.

However it's not merely a question of cost, and in fact there would be little or no advantage in using such expensive hardware for the kind of work the Amiga already does all too easily.

Admittedly there may be a difference in quality but if such a small improvement became essential, a cheap 24-bit board or AGA machine could easily make the grade.

Although the once-humble games machine can't as yet match the performance in pure speed terms when compared to dedicated graphics engines, there's no doubt that the gap is closing while the huge price difference continues to advance the Amiga's cause.

The only question is: Can the machine stand up in an ever-more vicious market? In my opinion at least, the answer has got to be a yes – no matter what the cost.

THE ULTIMATE

Considering the increasing popularity of the consoles and a threatened new wave of head-held Nintendos and Segas on the way, the Amiga's future has to be in what it does best – multimedia, static graphics, animation, ray tracing, music – in short, the kind of roles that have made it the ultimate productivity machine.

With the promised arrival of the AGAPlus and AAA chipsets in Autumn of 93 and Spring of 94 respectively, it appears that Commodore have finally learned the lesson that simply sitting back and counting the profits doesn't make for good business.

And with the new formats promising enhanced graphics and sound – 24-bit as standard plus 16-bit stereo sampling – along with an 060 processor, the future is looking better than ever for the serious side of Amiga computing.

AC

A question of convenience

With the apparent success of Knightmare, the obvious question was: Why had Broadsword chosen the PC as its vehicle to the virtual world for its next creation, Cyberzone?

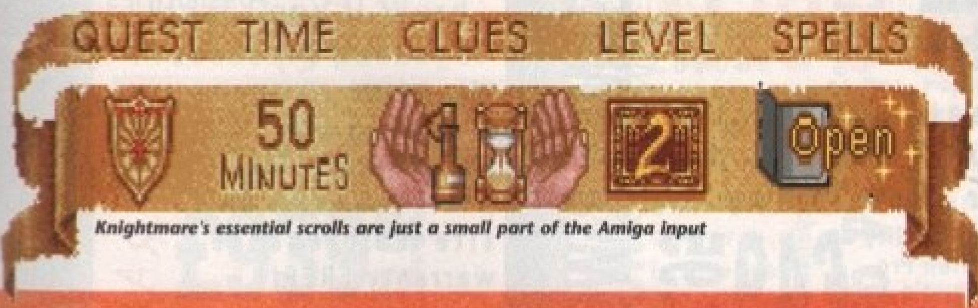
The choice to plump for PCs was even more strange when you consider that the latest VR arcade games from Virtuality – the company responsible for normally sensible people developing an insatiable urge to sport silly hats – are powered by well-hidden Amiga 3000s deep within the crash bars and polished plastic of the hardware.

After quizzing Tim about this slightly curious choice, he openly admitted that the decision was purely one of convenience, and hinged around availability of suitable software.

By chance, PC software ideal for the Cyberzone concept was literally ready and waiting. All that remained was to network five 486 machines together and the show was in business.



Treasures, swords and even monsters in the homes of millions courtesy of good old DPaint



Knightmare's essential scrolls are just a small part of the Amiga input

Babylon 5

Although British TV is becoming ever more Amiga-friendly, Blighty is by no means the only place where the machine is making its mark. In fact on the continent – especially in Germany – the Amiga is the premier graphics engine at the heart of countless cable stations.

Such success will no doubt be repeated in the UK as the promised cable explosion takes hold – if it ever happens.

However budget broadcasting isn't the only future for the Amiga. Hollywood has already spotted the potential of the machine thanks primarily to the award-winning MorphPlus morphing package from ASDG which has already played a major role in film and advertising.

Even more exciting is the machine's excursion into science fiction courtesy of Babylon 5. As you may be aware, following the huge success of Star Trek – The Next Generation, there's been something of a sci-fi explosion over the pond with a whole host of shows springing up in its wake.

At the forefront of these shows comes Babylon 5, one of the most graphically lavish productions ever undertaken for network broadcasting, literally fit to burst with Amiga graphics including state-of-the-art morphing and 3D modelling generated by the Amiga in concert with NewTek's famous Video Toaster.

With the huge success of the Toaster in the American market, the Amiga has become almost commonplace in both cable and network TV stations with its position being strengthened by Toaster-specific ray tracing software entitled Lightwave – a program which, alas, isn't available in the Europe.

It has become so popular that in many cases it has proved more attractive than the Toaster itself, resulting in the bizarre situation of a $1,700 graphics card becoming almost a dongle for the software which comes bundled with it.

Bad Influence

In keeping with the Knightmare tradition of childrens' television, Bad Influence again uses the Amiga but unlike the other shows the machine's output doesn't play a direct role in the show itself.

Rather than overlaying graphics, the Amiga element appears at the very end of the broadcast in the form of the program's Data Blast section, which when viewed normally appears as a blur of graphics flying by illegibly at the end of the programme.

However, it isn't designed to be seen in real-time. In fact to appreciate Data Blast a VCR is essential, the idea being that the show – or at least the Data Blast part of it – should be recorded and then the played back using the frame advance feature on the VCR. This in effect turns the pages of information contained within the section – all of which are of course generated on the Amiga.

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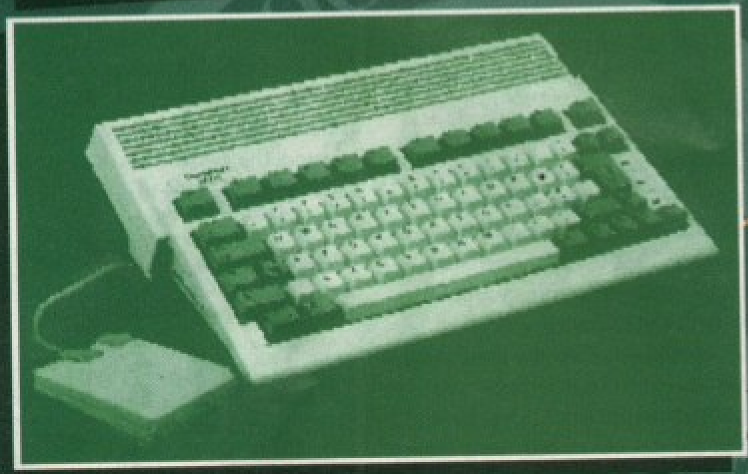
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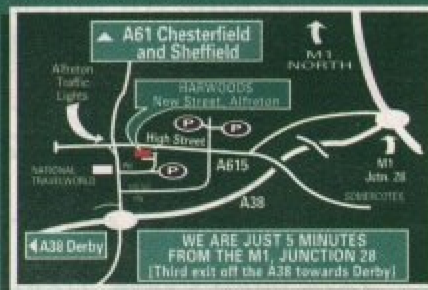
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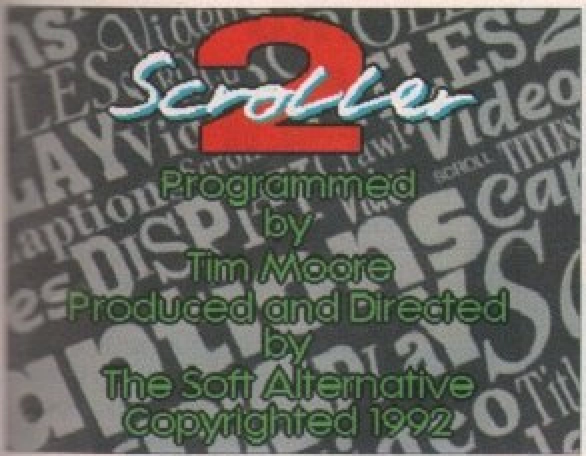
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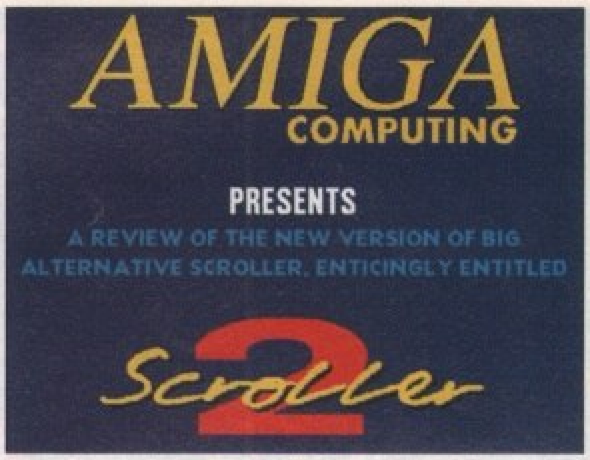
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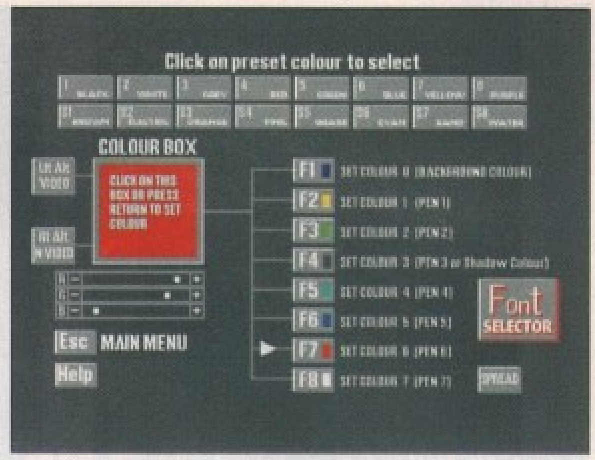
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Scroller 2 loader screen



Scrolling a screen like this is relatively simple with Scroller2



The Colour Palette menu

Taking the credits

Gary Whiteley enjoys a sneak preview of the scrolling successor to the Big Alternative Scroller, the aptly and originally-named Scroller2

It's probably fair to say that the original Big Alternative Scroller (BAS to its friends), which was the precursor to Scroller2, made more than a favourable impression on domestic and semi-professional video producers - and perhaps even a few pros.

Who knows how many holiday and wedding videos it has captioned? I expect it is rather more than a few.

Since BAS was launched several years ago a lot of Amigas have flowed under the bridge and Alternative Image rightly felt that a new product was needed to bring an old faithful up to date. So enter Scroller2, along with a host of brand new features.

FLOPPY DISKS

It has been designed with the most popular Amigas in mind. Only a megabyte of memory is required (preferably as Chip RAM), which means that all but the most witless Amigas can use it.

However, hard drive users will be disappointed that Scroller2 can only be used from floppy disk and power users like me may be a little cheesed off that it falls over at the least sniff of an accelerator (at least it did with my normally placid GVP Combo card). Still, not being in the majority I suppose I shouldn't complain too loudly.

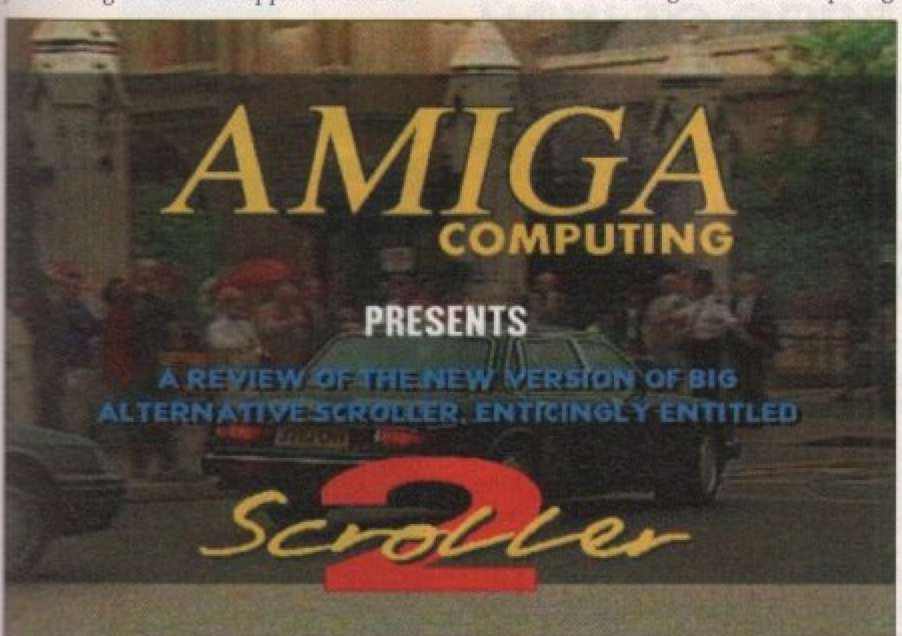
So how does Scroller2 shape up in action? The first thing to do is to reboot your Amiga with the supplied Scroller2 Program disk. Being a non-standard DOS disk (and non-copyable, though a backup is provided), Scroller2 cannot be run from either Workbench or Shell, and neither will it multitask.

The reasons for this are both historical and practical, since bypassing AmigaDOS provides an improved scrolling performance and makes better use of those Amigas with limited memory capacity.

Once running, the main menu screen presents a set of choices. The beauty of Scroller2 is that every aspect can be easily accessed using either the keyboard or the mouse. Function keys provide quick access to each of the major sub-menus or operations and clicking the mouse on buttons also gets you to the same places - so the choice is yours.

In fact, once you've learned the ropes you'll very quickly adapt to mixing function keys and mouse action to speed your way around Scroller2.

Furthermore, many of the sub-menu screens include additional sub-items. For instance, the Font Parameters menu contains shadow settings and several spacing commands, while the Video Parameters menu has settings for the number of colours (four or eight), genlock mode (on/off and Auto) and a test pattern loader. Again, keyboard or mouse commands make every choice simple and efficient.



Here's what can happen when you genlock graphics over video

Helpful as ever, Alternative Image have made sure that a well thought-out demo is included to show you just what Scroller2 can do. And this is an ideal place to start. Simply by pressing the F1 key, a whole scrolling demo springs to life, demonstrating all the features of Scroller2 both effectively and, at times, humorously.

EMBEDDED COSTS

After you've watched it go through its paces a couple of times you'll be itching to have a go yourself. But wait! A little study at this stage could well bear fruit later on.

The demo is also an ideal illustration of how Scroller2 uses embedded control codes. These can easily be seen by exiting the Scroll using the Escape key – which, incidentally, is probably the most useful key in the whole package, as it is used to halt or exit almost every operation and return to the previous or main menu screens.

By subsequently moving into Text Edit mode (key F3) and pressing the Control key, a horde of strange little boxes appear among the more familiar words and letters.

Just like text, these codes can be inserted or deleted at will and provide a direct way of controlling various aspects ➤

Making life easier

As a bonus, several extra programs are included on a take-them-as-you-find-them basis to provide a means of converting Amiga fonts into Scroller fonts, standard Ascii text files into Scroller2-compatible text and bitmapped graphics into font objects which can be used within Scroller2.

Admittedly, the programs tend towards the rough-and-ready, but they all manage to do their intended jobs without too much hassle.

There are limits, however. Converted fonts should have no letters wider than 64 lines (otherwise they will not display correctly) and graphics can only be eight colours maximum – though in hi-res these certainly look crisp enough.



The rectangles represent control codes which can be embedded into Scroller text for special effects and internal control over speed, fonts and colours



Special characters can be made with a paint program and converted to Scroller fonts with the utilities provided

Who needs a titler?

Although programs such as Deluxe Paint IV can fulfil many of the Amiga videographer's titling needs, there are times when it cannot successfully provide functions such as smooth vertical scrolling or horizontal crawling, not to mention special screen effects.

While Scroller2 offers little in the way of wipes and other effects – in contrast to much more expensive programs such as Broadcast Titler – it does provide easy access to scrolls, crawls and several other effects, making it an ideal companion to Deluxe Paint, even for the more accomplished video maker.

of playback (such as pause times and fades) and certain text characteristics, such as shadowing, colour and font.

You can learn a lot about Scroller2 just by watching the demo and bearing in mind just where and how the different control codes are used.

But it's all very well watching someone else's work. How do you go about making your own? By first applying a bit of planning. If you can decide in advance what you want to achieve then everything becomes easier. Write out what you want to say on-screen in the order you want to say it.

Perhaps, for example, you need to make a set of end credits; so list who did what, who gets credited first, the size, colour and style of lettering that will be used and then start work in the text editor.

Don't worry if you don't include everyone first time around, because Scroller2 is quite forgiving. Words can be added, deleted and easily changed at any time - and that goes for the font as well.

The editing screen is, somewhat unsurprisingly, where text editing takes place. Entering text is very similar to using a simple wordprocessor and at its most basic involves just typing words onto the screen.

But of course this will probably look rather dull, so there are umpteen ways of sprucing the text up and turning the really mundane into the relatively marvellous.

Through the use of a simple pop-up control panel – which is good news for Amiga 600 users who don't have the standard numeric pad on their machines – and function keys, every aspect of Scroller2's text functions can be utilised to make interesting titles and captions.

Font selection, colours, justification, speeds, pauses, dissolves, changes from vertical to horizontal scrolling (and vice versa), shadow placing, graphics symbols, access to "exotic" and foreign characters and several other miscellaneous functions are all at the user's fingertips.

INDIVIDUAL FONTS

In addition, further tweaks can be made to the way the text plays back by changing the spacing and shadowing of each individual font which is loaded into memory.

Once you think you're getting somewhere, it's easy to check your progress by jumping to Scroll mode and seeing how it all looks. This is also a good time to try adjusting the scrolling speed and judge how fast the text may need to go to be easily read.

Speed can be instantly changed by pressing keys on the numeric pad (unless you are an Amiga 600 owner, which means you have to use control codes instead) or stopped altogether by hitting the 0 key. As and when you feel like it, work can be saved to a specially-formatted text disk.

I'm not entirely sure how many fonts

> *'It's easy to check your progress by jumping to the stroll mode and seeing how it works'*

can be held on the system at a time, as this is governed by the amount of Chip RAM available on the Amiga in use, though a megabyte should hold at least ten.

With some thought, system fonts can be fairly easily managed by making up custom font disks with which to replace the default fonts, something I'm sure many users will be anxious to do. Then its a relatively simple task to load your favourite set when you need it.

CUSTOM FORMAT

Speaking of disks, Scroller2 uses its own format for both text and font disks (which, incidentally, are not interchangeable) and though it is possible to copy these disks through AmigaDOS (though currently only with a copier like X-Copy or D-Copy under WB2.X or greater) there is no way to monitor how full a disk might be or to fix it if something goes wrong.

And if anyone believes that nothing ever goes wrong where computers are concerned then they are very foolish. So some non-DOS disk management program should really be included - unless the data disk format can be changed to DOS, of course.

Let's be clear, Scroller2 is not without its problems, due mainly to its non-AmigaDOS operating system making disk management something of a battle and the Scroller Utilities also contributing to the confusion.

There are also areas of Scroller2 which need completing, particularly the help areas, and a few bugs need fixing, but on the whole the benefits easily outweigh the drawbacks and in any case the Scroller Utilities are included more as tools which users may find useful rather than completely user-friendly programs in their own right.

Alternative Image are the first to admit that Scroller2 requires some tidying up but they report that so far most users have been more than satisfied with the product, warts and all.

To sum up, Scroller2 provides smooth scrolling and crawling text with plenty of speed and other controls, a generous range of presentable fonts and a simple-to-use interface.

It has its idiosyncrasies of course, but on the whole it works well and most purchasers should find it good value for money – especially if they are upgrading from BAS.

And if you think that eight colours isn't enough for a titling package just make a note of how many colours the professionals use next time you watch the box. You might just be surprised!

●*Registered BAS owners can upgrade to Scroller2 for only £31.50 (incl p&p), which is considerably less than the £80 retail price. Upgrades are only available direct from Alternative Image, 6 Lothair Road, Aylestone, Leicester LE2 7QB.*

Those new features

To whet your appetites, here's a selection of some of the new goodies which are built in to Scroller2:

- Horizontal crawling as well as vertical scrolling.
- Can use standard Amiga fonts, as well as ColorFonts.
- 22 quality fonts provided in a variety of styles.
- Mix fonts, colours and shadow styles in words, lines and pages.
- Adjustable margins and crawl positions.
- Increased number of speeds.
- A variety of transitions, including TeleText and fade.
- Embedded control codes for complex visual scripting.
- Smoother scrolling.
- Up to eight colours available from 4,096.
- Both mouse and keyboard support.

SYSTEM ESSENTIALS

RED = Essential YELLOW = Recommended

1 Mb RAM | Floppy drive | Normal monitor

The bottom line

Ease of use 7/10
Implementation 6/10
Value for money 8/10
Overall 7/10

Supplier: Alternative Image
Phone: 0533 440041
Price: £80

Piping and friendly with it

Experience state of the art music and multimedia in concert courtesy of Bars & Pipes Professional 2. Paul Austin explores the most exciting software release to hit the Amiga in months

Although the title points towards an upgrade rather than a revolutionary new release, don't be deceived. The name may be similar, the graphics familiar and the interface seemingly identical, however it's under the skin where the real beauty of B&PPro2 starts to show.

Before the guided tour begins, now might be a good time to explain the basic concepts of the package before newcomers become hopelessly confused by what can appear to be a combination of music, plumbing and DIY.

Unlike the majority of Amiga sequencers, B&PPro is a true Amiga package – born and bred – as opposed to a simple port-over from the ST and PC market.

Although not necessarily a fatal problem – as Dr.T's often prove – porting does mean a lot of the Amiga's natural talents are often overlooked or ignored.

However this particular accusation certainly can't be levelled at B&PPro – no ugly green screens, full multitasking, ARexx, colourful point and click controls, pop-up requesters and mouse control with everything. In short the stuff that makes the Amiga the most flexible and friendly machine on the market.

If you've used sequencing software in the past you've probably already noticed B&PPro2 isn't exactly standard. Rather than assigning a simple track to each Midi channel the software allocates a separate pipe which sandwiches the track or sequenced section between an input and output pipeline.

The whole idea is that the package works like a sausage factory but rather than processing porkers these same principles are applied to Midi data, internal Amiga sounds and multimedia events.

For now we'll stick to the program's primary concern, which of course is Midi. To set up a pipeline you first pick any one of the 16 default tracks or alternatively create a new one – which of course can be renamed when necessary.

Due to the program's Midi tendencies, every track has a Midi In tool by default – without which you can't even squeeze a solitary note into the sequence courtesy of your keyboard.

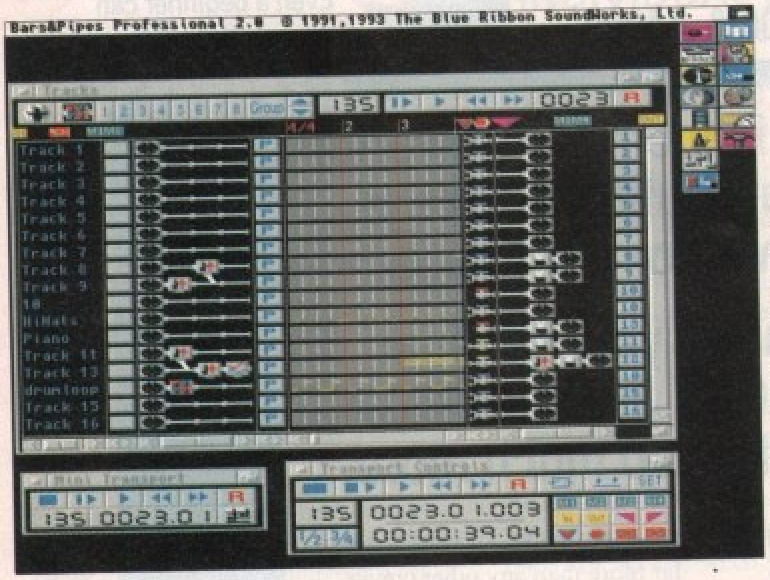
TOOL SELECTION

This is a prime example of a tool in action – in this case an input tool. If you were to select the ARexx real-time tool and drop it into a pipeline it would then automatically replace the Midi In as the input and from then on process incoming ARexx rather than Midi data.

Due to the immense potential of tools the whole section will be devoted to a more detailed examination later on, but for now we'll continue into the sequencer itself, bypassing the togglable play, mute and record buttons in the process. It's within the confines of the sequence window where you can examine and edit the results of the recording process. With the assistance of a well-placed mouse click each sequence opens its own unique editor complete with the entire passage for that particular track.

This can then be view, edited or printed as either classical notation, hybrid notation, piano roll, or using the latest addition of tablature – notes displayed as fingering positions on a guitar fret board.

If one display mode isn't enough, a combination can be used to suit any taste. In addition, a whole host of less traditional musical information can be added including volume, pitch bend, mono and polyphonic aftertouch, control change, program change, chords, rhythm, lyrics, time signature, key, scale and even dynamics. In short, if you want to view,



The heart of B&Ppro2 revealed with a quick bit of plumbing creating completely original sounds plus three methods of transport control all on the same screen



An automated mixing spectacular. Just sit back and watch the machine do all the hard work for you...

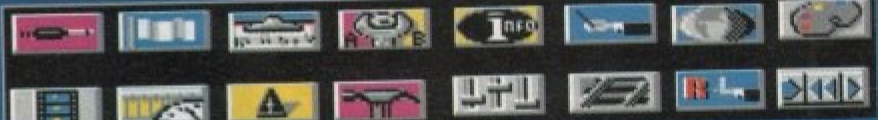
Through the edit window...

In the top right-hand corner sits the only permanent feature of the B&PPro2 interface, namely the 16 edit windows, each of which deal with a completely separate aspect of the editing and production process.

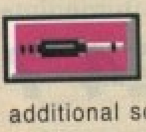
Without this modular design, working with the package would be almost impossible due to the huge variety of available windows.

Even in its present form the screen can still become very cluttered and as a result a hi-res display, whether it be flicker fixed or productivity, is a real bonus. However Blue Ribbon have done their best to solve the problem by implementing double height and width display on WB2 machines.

The result is that elements can be left out while the screen scrolls around - in effect providing a scrollable window on the entire interface.



Accessories



For here you can implement the program's expansion options by in effect plugging additional software into the B&PPro2 interface.

By default 14 basic accessories come as standard allowing connection to both software and hardware, but it's also here where other elements of the Blue Ribbon Range can be added including SuperJam!, Patchmeister and SyncPro.

Once installed each becomes part of the B&PPro interface sharing its particular talents for the common good with perhaps the perfect example being SuperJam! which automatically places its musicians in the form of tools directly into the tool box ready to be slotted into your chosen track for recording alongside your original creations.

Flags



Although already briefly mentioned, its within the flag window where loops, key points, punches and in fact all the flags can be set numerically, and like all the timing options the numeric display can be toggled between measures and SMPTE as the preferred timing medium.

hot

print or edit any aspect of the piece it's simply a matter of selecting the option from the pull–down.

Assuming the environment is now to your taste, editing can begin, and to assist the process each window contains a complete set of point–and–click edit modes.

The available options include a magnifying glass allowing access to specific note information, a pencil for note addition, a magic wand for altering existing notes, a hand for dragging notes, an eraser for deletion, a toolize option which applies a specified tool to any selected notes, a bounding box to make the aforementioned multiple selections and finally a step time option allowing note entry via predefined settings.

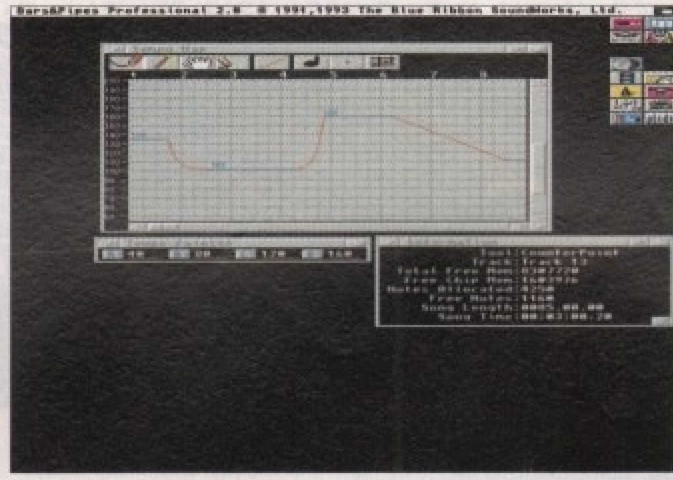
OUTPUT PIPE

The next four icons allow adjustment of the note settings and as a result any note length and volume can be set for additions both in step–time or during free–hand editing.

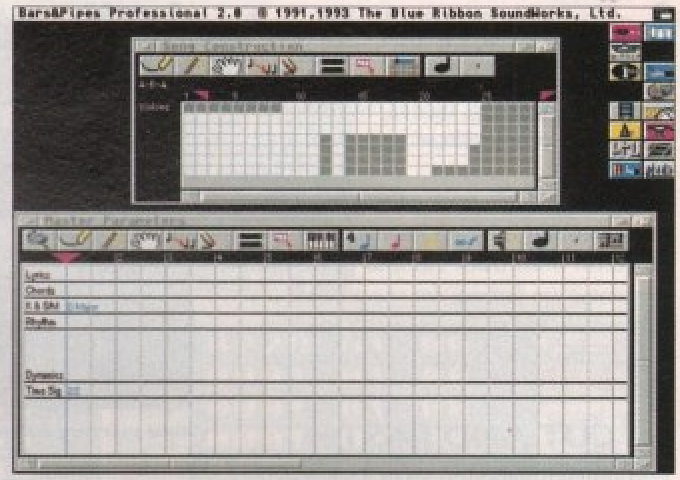
The final four buttons further enhance display and editing via twin zoom buttons, a playback option – either with or without additional tracks – and finally a togglable measure–to–SMPTE time display.

Assuming editing is complete, next up comes the tap at the beginning of the output pipe. From here you can either cut the output completely, play pre–recorded notes or select the default thru mode to hear your live input in concert with the existing sequence and any additional tracks.

From here, the pipeline flows out and enters the Midi Out tool ready for input into the chosen module or keyboard courtesy of the channel selector at the very end of the pipe. As you can see from the



The tempo map in action plus instant info courtesy of B&Ppro2's pop-up information requester



Cut and paste at its best in the song construction window in addition to the power features supplied in the master parameters

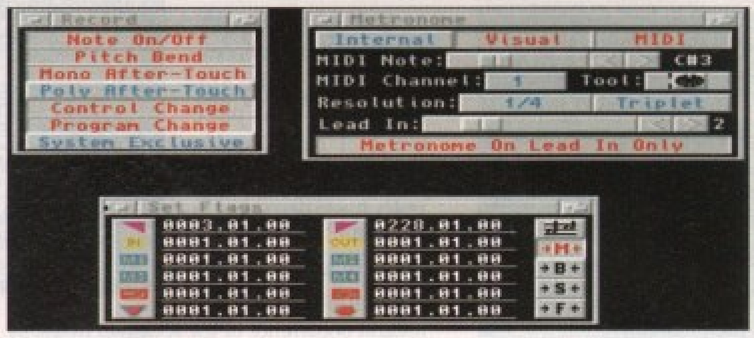
screenshots, the pipeline and sequencer aren't the only elements within the Track window.

Above the tracks themselves come the program's group, playback and multiple edit features.

From left to right: The options start with the solo selection button which toggles the output of the sequence dependent on track selection.

So for example if just one track is selected the sequence will cut and re–connect the valves to either solo the selected or cut the selected completely.

The same situation applies to group selections and as a result it's possible

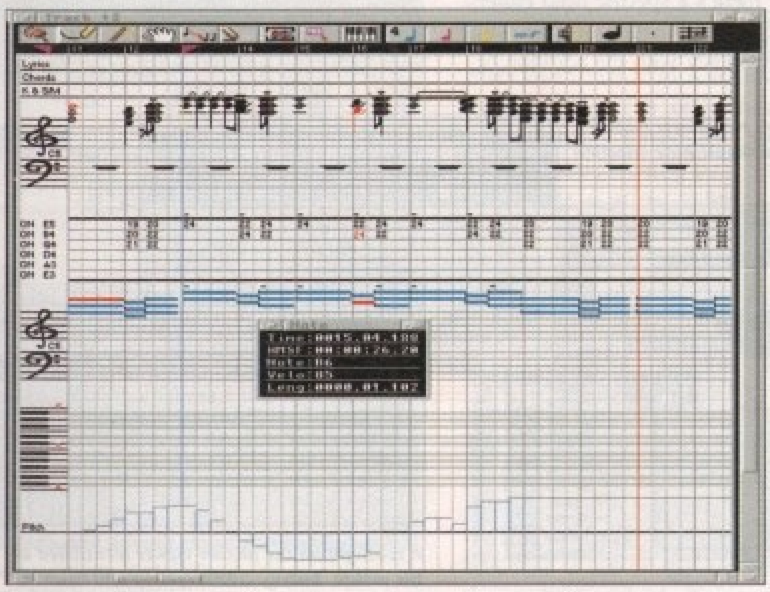


Information filtering, total control over the metronome plus split second accuracy for flag positioning again all on offer at the click of a button

place all the percussion track in a group, select them by their group number and then solo or remove the percussion instruments as required.

The next option takes global editing to its logical extreme by offering a toolize feature allowing a specified tool to be used across all the tracks in the sequence – quantise being a perfect example.

After toolize comes the aforementioned Group feature allowing up to eight different groups to be defined and then played back or edited as independent units.



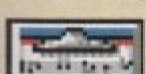
If there's a way to look at and indeed print your creations the much improved notation options can supply the goods

EASY EDITING

Yet another organisation option alongside allows the track position to be adjusted meaning individuals can be moved up and down the list thereby producing logical groupings of related tracks for easier editing and cross–track connection.

Next up come the transport controls and tempo option, although in reality the permanent controls offered in the Track window are really only a cut–down version of the full transport options we'll look at a little later. From here all the basics are ➤

Clipboard

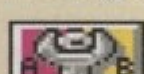


In the best traditions of cut and paste recording, B&PPro2 not only edits individual clips but also stores them sequentially in the clipboard, and as a result it's simplicity itself to share elements between tracks.

A particularly nice touch is the option to specify what aspect of the clip is used. As a result you can paste only, say, the pitch bend information from one track to the next.

In fact all the elements mentioned in the editor section can be included or excluded as required, and to finish the job clips can even be saved to and loaded from disk.

Song construction



In this particular case the title tends to give the game away. In short it's here where the finished verse, chorus and in fact anything else can be knocked into the shape of a complete song be employing the same editing techniques mentioned in the track editor This time the various cut, paste and duplicate options operate on a bar-by-bar basis.

However, in addition there is one major difference in the form of the A-B-A editing system which when combined with the propogate option in the pull-downs allows any edits which occur within a named section to be automatically copied to all identical passages throughout the song - automation at its best.

Information



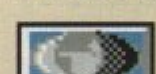
Again yet another rather self explanatory feature which simply relays the appropriate information on the select track, plus song position and length, notes allocated and available RAM - whether it be chip or fast.

Tempo map



Just as you can edit notes you can also edit time itself, a rather grand concept perhaps but in reality it simply means the tempo of the track can be altered at any point via a selection of four transitions curves which like all the edit options are applied and edited by the same tools found in all the edit windows.

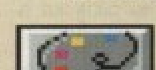
Master parameters



In addition to being the place to add such things as lyrics, chords, key signature and rhythm, the Master Parameters have a more subtle side which provides a reference point for various tools and accessories.

For example the time signature will affect the printing of notation while chords and dynamics directly affect the chord and phrase shaper tools.

Tempo palette



Although overshadowed slightly by the Tempo map, the palette window offers a selection of four preset tempos which selected direct from icons as required. ➤

possible with mouse–driven tempo adjustment plus point and click tape deck controls for playback, record and rewind alongside a counter showing present song position.

Although single track editing has had a brief mention it by no means offers the powerful multitrack cut and paste that sequences are famous for. As a result it's here where the programs fairly unobtrusive multi–edit options come into their own.

CUT AND PASTE

Admittedly multitrack cut and paste is probably the most important function on offer of the total collection of 12 assorted flags, which allow up to four definable key song positions, definable punch–in and punch–out points, looped sections, edit markers for the aforementioned multiple cut and paste plus a stop button ready to terminate playback at any point.

Even though a rather confusing selection initially, all 12 flags follow exactly the same principles of placement. As a result, a simply click and drag to the appropriate point is all that's required to set up the option of the your choice whether it be a key position, looped section or a cut and paste area.

Although closely linked to the transport window mentioned earlier, the so called "flags" have their own window allowing numerical adjustment while activation of the specified punch–in and loop sections is handled by the main transport.

And of course according to your preferences – again set via the pull–downs – the placement of flags can be automatically aligned with measures, beats, seconds or frames thereby snapping the particular flag to the nearest occurrence of the specified event.

Although rather innocuous wee beasties it's the 79 tools supplied with B&PPro that make it really special. Due to the numbers involved a complete explanation of each is out of the question, however it's pretty safe to say that if there's a specific need either an individual or combination of tools will fit the bill. Obviously with the addition of Media Madness a fair selection of the supplied tools are related to such things as anims, stills, Scala, genlocks, samples, the IV–24 and many others. However, even with the sizeable multimedia collection the vast majority remain musical fitting very roughly into three basic categories.

First comes the fairly familiar special effects such as echo, delay, reverse, harmonise, chord builder and so on. In short the sort of effects you'd expect from a signal processor.

Next come the splitter effects which – by reading either the velocity or pitch – filter certain notes to another track or perhaps replace one sound with another after a specific volume.

Alternatively tools such as counterpoint actually use your notes to generate original accompaniments or chords.

Lastly come the pipe–orientated tools such as branch out, merge, transpose, feedback and so on. Although not usually responsible for altering the sound directly, these channelling tools provide an invaluable link to other tracks in the sequence.

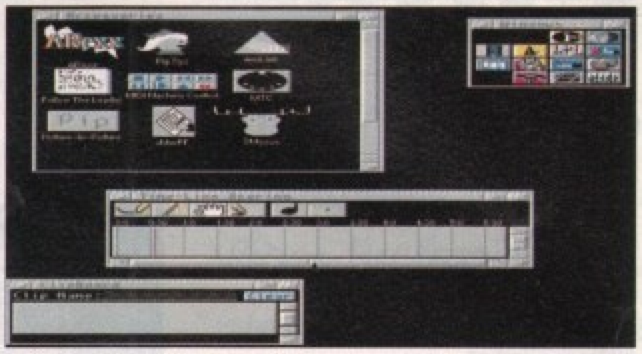
As a result it's possible to build huge



Build your own designer tools in seconds in the excellent macro tool edit window

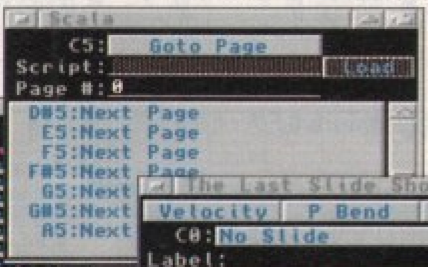


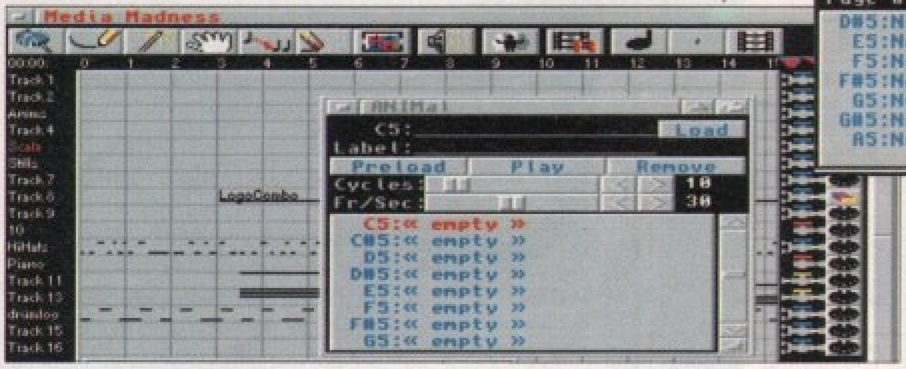
Just a small selection of the immense number of tools that come as part of the package



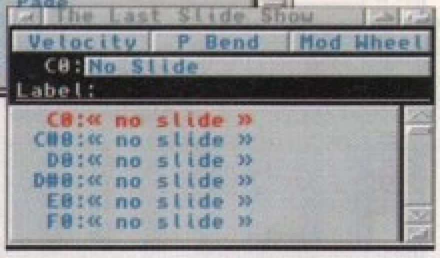
Instant access to B&Ppro2's plug-in accessories plus time-line scoring for multiple song compilation and video, not forgetting the clipboard allowing cross-track cut and paste

A close look at one of the program's real power features, direct control of Scala all set-up via simple note selection





The media madness window in action as anims, stills and Scala presentations all combine in building a multimedia spectacular



A spotlight on the picture viewer mentioned in the article, fading, colour cycling and more all from seemingly normal Midi data

Media madness

In many ways the Media Madness window is almost identical to the track window with the only real difference being that the latter is designed primarily to record and display multimedia events alongside musical ones.

So for example, if an IFF is assigned to a specific key on a track, the event when recorded will appear within the Media Madness window as perhaps "carPic" – assuming that's what you've called it.

The same applies to all the program's multimedia options – you simple assign a key and then while recording any depression of that particular note will activate the event, even though within the track window this "special note" appears just like any other.

By this ingenious approach to multimedia literally anything can be controlled by what appear to be a bog standard bits of Midi information.

We'll look a little closer at the multimedia side of B&PPro2 later but in essence the Media Madness window is merely a multimedia reflection of the track window, complete with all the edit options you'd expect from a Midi graphic editor – although the edits themselves are usually media rather than Midi.

Time-line scoring

Although timing keeping appears to have been almost flogged to death elsewhere in the package, time-line scoring offers yet another option, but this time it's whole songs that come under the microscope – or should I say metronome.

Via the now familiar selection of edit tools, complete section can be dragged around in SMPTE time to provide the perfect synchronising environment for DTV and film.

Metronome

Note surprisingly it's here where the human side of the time keeping gets a hand with options for internal and Midi counts either with or without the flashing assistance of the interface itself. The almost embarrassingly friendly point and click continues with mouse control for everything from selecting the channel and patch for playback, the number of intro bars prior to record and whether or not the count continues after the lead in.

Toolbox

Although the tools themselves will enjoy an entire section to themselves later, it's from here where they emanate. Depending on how you set up the window the various tools either appear as icons or icons complete with their names appended alongside.

Although the icon-only option may seem slightly stupid it's with good reason as an incredible 79 tools come as part of the B&PPro2 package.

As existing users of its predecessor will be well aware this is a huge increase and a major selling point for the new version. Fortunately for both memory and space you're given total control over installing and removing tools as required.

sounds from just a single note which feeds through a network of tools and tracks picking up effects and additional sounds in the process.The final twist in the tool tail is the program's macro option which allows you to build totally new tools by combining existing ones within a special window. Once complete the new tool can be saved and installed just like any other.

The real beauty of the macro tool system is that it provides the opportunity to capture accidental strokes of genius within the track window.

GREAT EFFECT

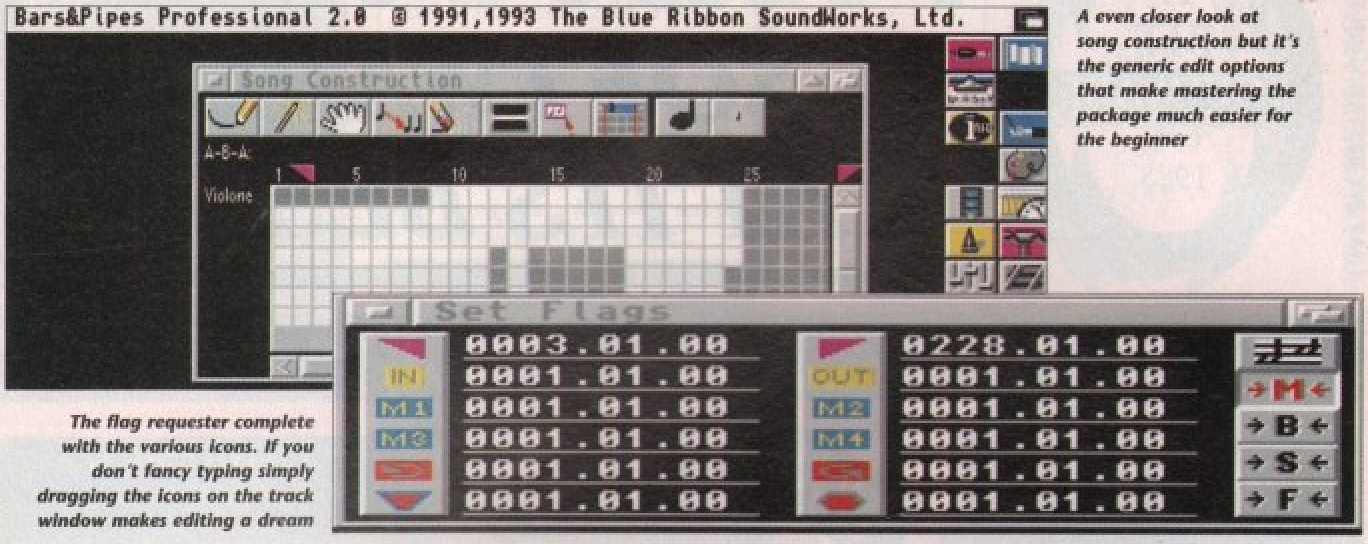
If by pure chance you create a really great effect the assorted tools and pipework can be duplicated within a macro tool and saved for posterity ready to be re-installed – complete with designer icon – alongside your existing collection.

Just like Midi tools, the program's multimedia options are simply too diverse to cover in the space available but to give you just a taste of the power on hand here's the in-a-nutshell guide to one of the simplest Media Madness options – the IFF viewer.

Once installed as the chosen effect, any number of pics can be appended to a selection of notes. Although pretty impressive in itself, basic on/off display is only the tip of the iceberg.

If for example modulation is applied either live or during recording the image appended to the note will fade in and out according to the degree of modulation. As if that's not enough the addition of pitch bend applies colour cycling – amazing!

Believe it or not this is about the simplest Media Madness tool on offer and is literally dwarfed by the more complex control tools such as the Scala tool, the IV24, Panasonic laser disks, the SunRize12 and 16-bit boards – the list goes on and on.



A even closer look at song construction but it's the generic edit options that make mastering the package much easier for the beginner

The flag requester complete with the various icons. If you don't fancy typing simply dragging the icons on the track window makes editing a dream

> ***B&P Pro 2 is without doubt the hottest item in both the sequencer and multimedia markets***

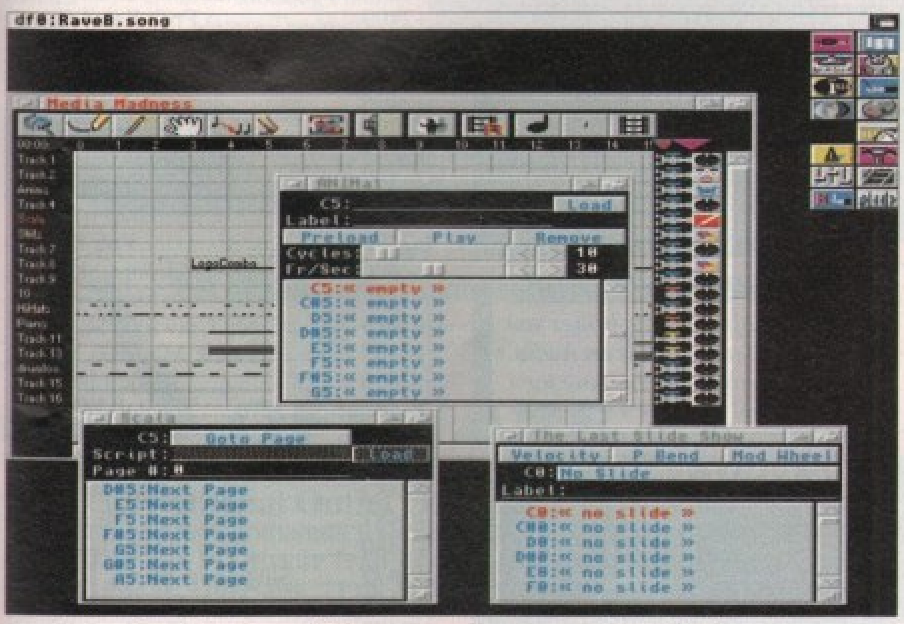
In short, although not strictly a presentation package, B&PPro offers arguable the most comprehensive multimedia environment available on the Amiga – and they even throw in a standalone Media Madness player to round things off.

Although noted for my less than enthusiastic closing paragraphs I must admit I'm at a loss to knock what in my opinion is one of the best releases in months, if not years.

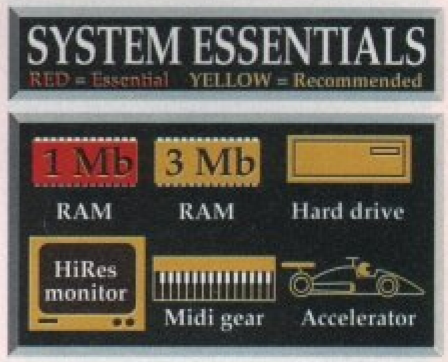
NEAR FAULTLESS

On the musical side the package is near faultless and with the much improved printing and of course the incredible Media Madness option B&PPro2 is without doubt the hottest item in both the sequencing and multimedia markets.

It's true that you'll need a hell of a machine to run all the elements in tandem but to be fair that's the case with all the packages in this sort of class. If you're thinking of sinking serious money into a sequencer and fancy the odd adventure into multimedia even the £299 asking price seems more than reasonable.



As you can see from the screen grab things can soon become pretty cluttered and as a result employing interlace or productivity mode can become essential

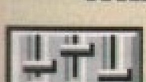


The bottom line

Ease of use 10
Implementation 10
Value for money 9
Overall 10

Supplier:
Meridian Software Distribution
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(£199.95 as an upgrade or in exchange for any other sequencing software with original manual)

Mix Maestro



Although not a new feature, automated mixing is a sure sign of a modern power sequencing package and as you'd expect form software in the £200+ bracket, B&PPro2 isn't found wanting when it comes to the mixdown.

Aside from offering simple control change information within the tracks themselves, Mix Maestro provides real-time pan and volume control which in effect mean the window operates just like a automated mixing desk but on-screen rather than in the studio.

Like any decent mixing desk, track groupings can be assigned to make the process simpler – in this case four, so for example percussion groups, strings, brass or whatever can be locked together and thereby faded up and down as a complete unit.

In addition panning is again all done via the icon equivalent of a pan-pot, you simply click and move the mouse to send the sound of you choice from left to right.

Footsteps could pan from speaker to speaker while soft strings fade away into a growing crescendo of percussion - during which you simply sit back and watch the automated sliders do all the hard work.

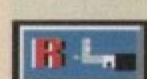
Even better still, various mixes can be saved either to the clipboard or disk for later comparison or the inevitable remix – a feature worth even more than a pair of six-inch platforms on the dance scene.

Tracks



As you'd expect from the title, it's here where the track window is revealed. This area has already been explained earlier so it's safe to skip it and move on to the last two elements in the window section.

Record



Although recording is well catered for in the track window the Record option offers the useful ability to filter out unwanted or perhaps unnecessary Midi information by allowing you to toggle note on/off, pitch bend, mono and poly aftertouch, program and control change and finally system exclusive information in or out of the recording equation.

Transport control



Even though transport control is offered within the track window and via a pop-up mini transport, this full-scale version adds all the whistles and bells in the form of icons which automatically jump the sequence to any one of the 12 flag positions while also allowing access to the punch-in and loop options.

In addition you also have full time display in both measures and SMPTE plus the present tempo settings and an invaluable half and three-quarter time playback option which makes tricky recording much easier by temporarily slowing the sequencer – and thereby the record process – without the need to adjust the overall tempo of the track.

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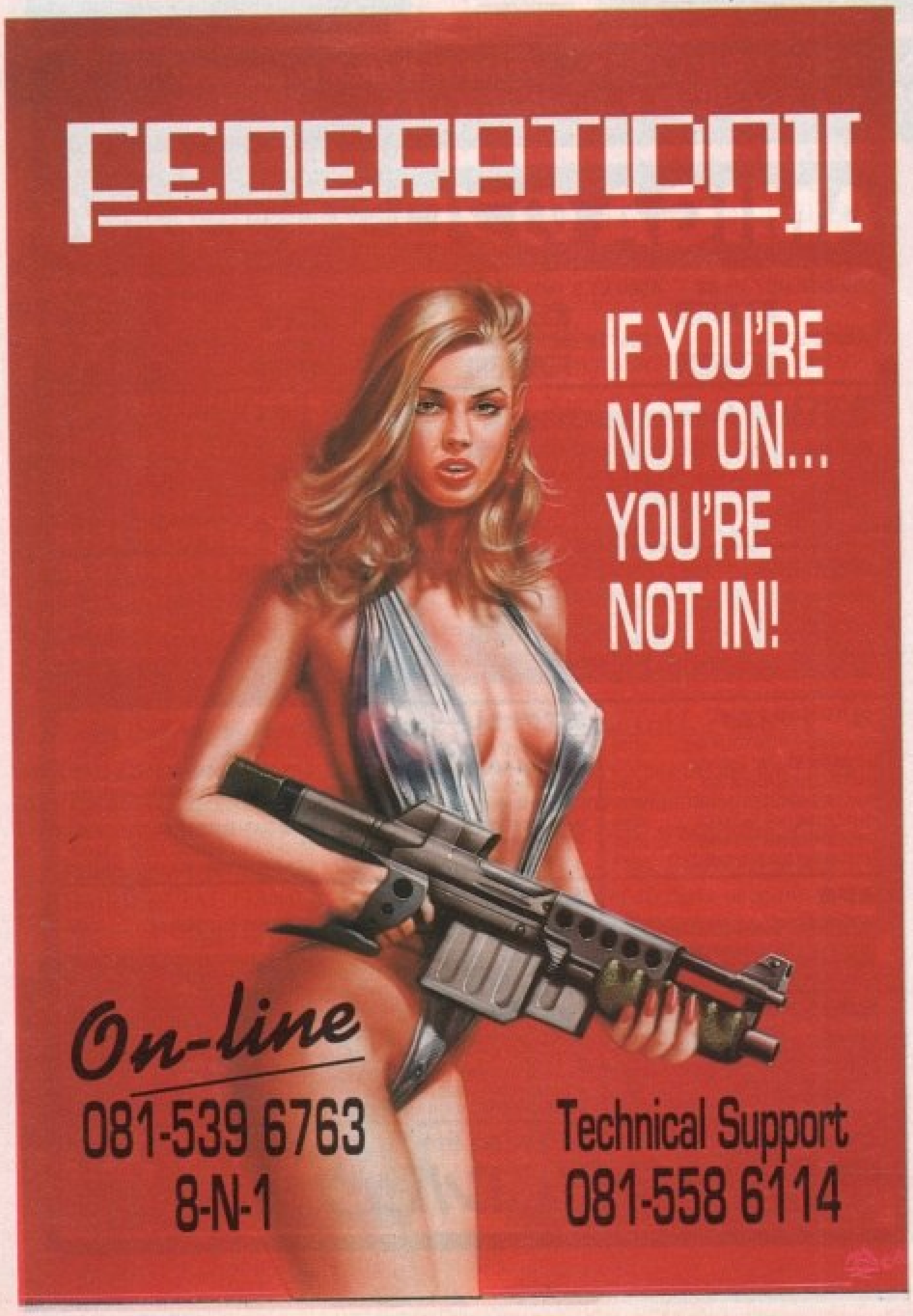
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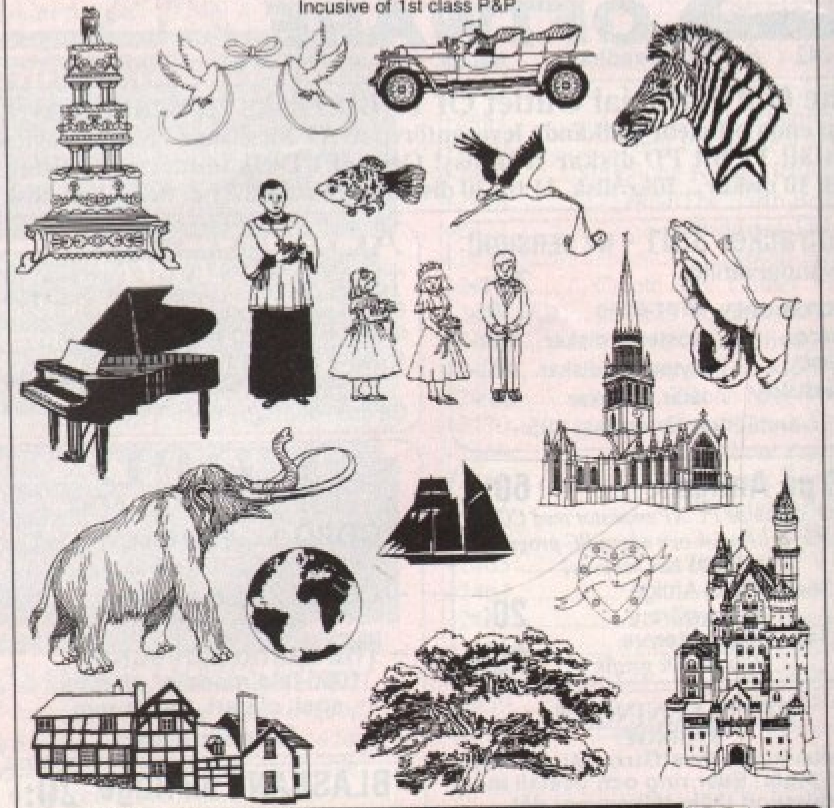


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Hard drive horrors

After being an A500 Plus owner for over a year I decided that it was time to upgrade my system, and have purchased an A1200 with 120Mb hard drive.

Now that I have a hard drive I wish to use the thing, and it is only now that I realise how few Amiga games are not capable of being installed on this much more convenient medium.

The software houses may well reply with the gripe that it is the piracy problem which leaves them no option but to opt for on-disk protection, but this protection has often been accused of damaging floppy drives by forcing them to make very irregular disk accesses.

It is in my view criminal behaviour to distribute a product which they know is likely, with repeated use, to damage the purchaser's computer system.

This is totally unacceptable. Owners of PC compatibles, where piracy is thought to be 50 copies for each original, do not have to put up with this sort of treatment and it is about time that software publishing houses were brought to book for this treatment of Amiga owners.

From now on, I will not spend hard-earned cash if the program will not install on hard drive, and if other Amiga owners were to follow my example the publishing houses would be forced to take notice and change their current policy.

Nigel Spence, Linton-on-Ouse

You have put your finger on a problem which has confronted a growing number of Amiga owners and which, despite regularly attracting criticism from readers such as yourself, the software companies seem determined to ignore.

Let's face it, on-disk copy protection is about as effective as a chocolate teaspoon. From the lists of cracked games we receive now and again from anonymous hackers, it is clear that the vast majority of popular games can and will be cracked and swapped almost as soon as they are released.

It begins to seem strange that although the software companies have sworn by on-disk protection for years as the only effective method for combating piracy, they still suffer as much from the software thieves despite the fact that copy protection is now much more sophisticated than it used to be.

This in itself should be enough to convince them that to carry on fighting a losing battle at the cost of upsetting a growing section of the user base is in the long run suicidal.

The ultimate insult is when a game on the Amiga will not install on hard drive despite the fact that the PC version of the same game does.

There have been several recent examples of this, and the apparent difference between Amiga and PC owners in the eyes of the games companies - one is a potential thief, the other isn't - is probably the most insulting and patronising aspect of the whole copy protection debate

Old fogies abandoned

Out of seven or eight Amiga magazines in New Zealand, *Amiga Computing* is the only one which gives value for money, even if it does cost $16 (about £5.35) a time.

Being a games type person, I found your Absolute Beginners section ideal for getting more in depth advice, and found I could "repair" some of my non-booting disks. The CoverDisk is great too, especially Cybernetix (try level 62 and 596,482 points on for size), but my one gripe is that both the disk and the magazine seem to be very biased towards Workbench 2.04 and above.

I only have Workbench 1.3 and was wondering if you could keep it 50/50?

Oh yeah, when you ship out demos such as the Home Accounts 2 disk, maybe an extra month before the timebomb activated would be a good idea.

We pick up our December 1992 issue in mid February 1993, so we can't try programs like this for a full calendar month.

That's it, I've had my moan. Keep up the great magazine.

John & Yvonne Howe , New Zealand

I'm sorry that you think we're biased against Workbench 1.3, but the fact is that it hasn't been supplied with any Amiga other than the CDTV for about 18 months in our main reader base, the UK and Europe. Since the release of the A500 Plus, Workbench 1.3 has been superseded by versions 2.0, 2.04, 2.1, sand 3.0.

Our Absolute Beginners series, as you probably know, was pitched at both 1.3 and 2.04 users, but as all new Amiga owners for over a year have been 2.04 or 3.0 users, it is highly unlikely that we or any other Amiga magazine will have the space to cover all three versions of the operating system.

We have never missed an opportunity for urging as many people as possible to upgrade to the latest operating system, especially those with any serious uses for their Amigas, and we won't miss it now. Workbench 1.3 is dead, long live Workbench 2/3 (uh, oh - Ed).

Your concern over the timebombed demo is one that we share, which is why export copies of the Home Accounts 2 disk had an extra month of life granted to them. However, we didn't count on our magazines being transported to New Zealand on some sort of Doolittlean Giant Sea Snail rather than by more conventional - and faster - means.

Disk helper

Being new to the Amiga, or any other computer come to that, I'm really grateful that your CoverDisks have been including items which help to educate my children, the Fun School programs for example.

Now to help educate me! Could you run a tutorial on how I can get the individual programs off the CoverDisks and on to a spare disk which will self boot?

Richard Nicholls, Newton Abbott

We plan to run an AmigaDOS series for beginners soon which will be aimed at new users and attempt to take them from the first basic steps to creating autobooting disks and other practical tasks, so keep your eyes peeled.

For the moment, try copying a CoverDisk, deleting everything off it apart from the Fun School module, then dragging the Fun School icon from another disk into the same window as the first module. This might involve you in several disk swaps, but should be the easiest way to gather the three modules together on one disk.

Name that tune

Having read in the April issue of *Amiga Computing* about your views and recommendations on the music side of the Amiga, I was intrigued to read about the CoverDisk music. The article said that "when you've got some tunes you are truly proud of, why not send them to *Amiga Computing* for the CoverDisk?"

I was wondering what sort of music you accept and what conditions or rules you make for people who send music in. I have spent a large amount of time making music and I would be grateful if you could give me the necessary information.

Damien Warner, Harrow

We will consider any type of music, from acid house to classical, for inclusion on the CoverDisk. The only prerequisite is quality.

Rules we use are the usual music copyright laws, so complete rip-offs of recent songs are out, as are boring sequences of samples from films, videos, or CDs.

Of course, original music is always the best, and though a well presented and produced but uninspiring piece can sneak on, we always prefer a reader's own work.

This aspect of the CoverDisk is, after all, designed for the thousands of music-making Amiga owners whose creations might otherwise never see the light of day.

Poor showing?

I recently visited the 7th International Computer Show in London and have a few comments to make about it.

Firstly, I'm surprised that *AC* themselves didn't have more of a showing than they did. I think that you should have had all the products you sell on show as some of them were not sold by any other stand in the show.

I don't think you did yourselves justice by having just a few back issues for sale and an advice desk. The game chosen for the challenge wasn't exactly brilliant either, but that's just my opinion. It may be that there were more products available ➤

in the first two days as I went on the Sunday. If so, you should been consistent over the three days.

Secondly, there were only mail order companies at the show except for the Acorn, Atari, and Virtual Reality stands, whereas I think companies such as Commodore should have been represented. Also, the show could have been spread out a bit more, as it was fairly cramped despite the apparent abundance of space in the rest of the hall.

However, it's not all whinging. It was good to see so many mail order outlets slashing their prices for the show. I picked up some Soundblaster speakers for £25 which was pretty good. The cost of admission was also low at only £4 for students, and all in all I had a good day, seeing some products running which I had never seen before.

I would like to pass on some advice to people considering the next show. Do check your products before coming away from the show if possible. The speakers I bought had a faulty 3.5mm plug, but luckily a friend of mine was able to fix it for me. The headphones were also missing but this wasn't a major problem.

I do have one question. Where can I get the addresses of the stand holders? I would like to contact a company called Connect International and also a stand which was offering a cleaning solution for spectacles which was right in the corner.

Scott Wright, Aberystwyth

The show organisers, Westminster Exhibitions, can be contacted on 081-549 3444. They should be able to provide addresses and phone numbers for any of the exhibitors present at the show.

As for the Europress Enterprise stand, we were offering back issues, subscriptions, current magazines, technical advice and a gaming challenge. If there was a stand at the show offering more for the money I for one didn't see it.

I'm sorry you didn't approve of Sensible Soccer as a choice for our Gamer challenge, but we had to have a popular, recent game with the potential for good two-player competition, and we could only choose one game.

Your advice to buyers at computer shows is sound and we would urge anyone to follow it, if only because returning faulty equipment to a company half way across the country is so much more hassle than doing it at the show and receiving an instant refund or replacement. You will find companies much easier to deal with face to face.

A1200 graphics

I am about to purchase an A1200, but before I splash the cash I would be grateful if you could help me out on a few points.

Before the A1200 was launched I was, reluctantly, scraping together the cash for a PC (because of the better graphics) in order to do some 3D animations. I don't have to spend as much now though as the A1200 exceeds my graphical needs.

A program on the PC platform called Playmation was a perfect piece of software for what I'm planning. It included 3D modelling, animation, ray tracing, and morphing. The use of splines in the modelling made it a perfect tool, and at a price of £199 I would have sold my soul to use it.

Is there any software presently available or planned for the A1200 taking advantage of the AGA chipset which performs these functions, and if so what is it and how much does it cost? If not, are there any pieces of software which I could use together to carry out all these tasks?

Simon Brown, Manchester

Where have you been? The Amiga's range of low price ray tracing packages have been unequalled for years and still are. Playmation is undoubtedly a good product which we may see on the Amiga soon, but it doesn't do anything not already possible with a copy of Real 3D or Imagine 2.0.

Both these packages output high quality 24-bit images which the A1200 will display as Ham8 through the Multiview utility, and both are soon to be released in all new versions offering the latest 3D modelling and animation techniques. Prices for the older versions can be £150 or less if you shop around, so don't worry about affordability.

The catch is that you should be prepared to add 4Mb RAM and a hard drive to your A1200 when considering such high level software, though this should still bring your machine in under the price of a PC. Have a look at our cover feature in the March issue for a comparison of the A1200 and the PC

Petty picking

It struck me while reading your magazine the other day that many of your hardware and software reviews are very picky. I mean, you seem to think a new product should be able to do everything and it always gets a rough ride if it doesn't.

My dog, Major, named after the Prime Minister (because he's grey and barks a lot), fetches the newspaper, will sometimes lie down when told to, and hardly ever chews my slippers. He does, however, shed hair which can be a pain when trying to hoover.

I fear my otherwise faithful pooch would have a score box looking something like: Hoover essential, Pedigree Chum recommended. Implementation 6, Ease-of-Use 6, Value-for-money 7, Overall 6.

This, by your standards, is a rather poor showing. Should I get rid of him and look for a faster or more colourful model?

J Crackley, Birmingham

Well, Major is probably quite sufficient for the minor household tasks, such as coating the carpet with hair, causing a great deal of unnecessary noise, and walking around with his tongue hanging out, but you might be surprised how much better another model might be if given a try.

We at AC try to ensure that every product is examined from every angle, which means that if there are faults in design or market placing, we will find them and highlight them. After all, if we didn't, we wouldn't be doing our duty to the readers.

Dird as a dodo?

Missing, presumed "dird". Month after month the CoverDisk startup sequence words remain unchanged, and the DIR command hasn't appeared since disk 37! Will it ever return?

F Carter, Reigate

The words which come up as the CoverDisk boots are the last thing to be changed and they can sometimes be missed. We'll sort this out. Sorry.

As for DIR, it's one of those commands which the majority of users don't need much, as they usually boot Workbench when transferring programs from the CoverDisk to another floppy, but we'll include it from now on if there's space for it.

Double trouble

I have refrained from buying your magazine recently as I object to paying for double CoverDisks which I do not want.

Looking at my present collection, there are hardly any that are in regular use. A lot of them need other files to run or request disks which are not included, or simply fail to load or run, so much so that I have decided to make a stand before the front page breaks up under the strain of all the disks stuck to it.

I did think that Protext was going to be useful, but have found it more hassle than it is worth. I still cannot print out a half page letter without it scrolling to the bottom of the page and tripping the Paper Out switch, despite marking out a block and asking it to print block.

The time taken for me to get to grips with Protext was eating into other activities and as I usually need a wordprocessor only for writing letters, then Ed is perfectly adequate and using aliases from the Shell enables me to quickly set margins, print style, and so on.

If your policy of extra CoverDisks and price rises results in improved sales figures, then good luck to you, but to do that you need to sell an extra two to make up for my lost purchase each month.

G H Jones, Leicester

I'm sorry you don't think our double disk issues are good value for money and that you are having trouble with Protext, but we can't be all things to all men every month.

Indeed, partly because we don't like to hike the price of the magazine too often and partly because double disks are very expensive to publish these days, we are presently putting our special offers on a single disk.

This will please those like you who don't want to pay the extra for another disk, but may annoy people who like to see as many shareware utilities as possible crammed onto our CoverDisk.

We will then receive letters from enraged readers who would rather see the latest virus killer than a commercial spreadsheet package, for instance, and the debate will swing round again.

In the end, whichever approach satisfies the greatest number of readers will win out, so keep those letters coming.

Got something to say through the pages of AC? Ezra Surf is our mailman, dedicated to reading your letters and selecting the most interesting for publication. Drop him a line at:

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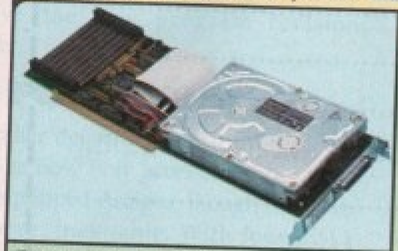
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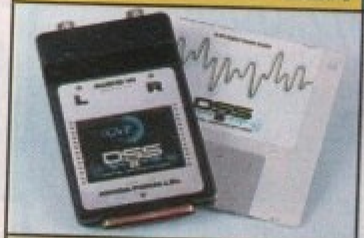
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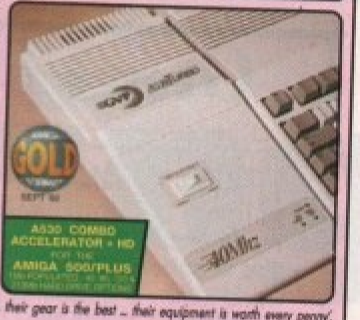
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World-beating DTP?

A new version of the original Amiga DTP package, Professional Page, is now upon us. Gary Whitley takes a look

Believe it or not, Professional Page has been with us since 1987 in one form or another, and boy has it changed over those five years! But then again, the Amigas that it runs on have changed significantly too.

Now comes Professional Page 4.0 to take advantage of the new AGA chips and put yet more publishing power on your desktop.

But AGA compatibility is just a small part of the new features which have been packed into Professional Page 4.0. There is also support for a wide range of graphics and text formats, improved font and page management, more text styles and Genies, pattern fills, custom magnification and plenty more, all of which justifiably deserve the new program revision number.

FOUR DISKS

Another departure is that Professional Page 4 is now only accessible from hard drive–equipped Amigas, though this was, I suppose, inevitable. With four disks packed full of LHA'd archives there's little chance that floppy disk users would have been very productive (or even happy) continually swapping disks.

Floppy users can always find other solutions, such as sticking with Professional Page 3 or PageSetter 3, but its becoming increasingly evident that hard drives are now a more essential part of serious Amiga life than ever.

I've been using Professional Page 4's predecessor, Professional Page 3, for quite some time, so I'm very familiar with it, but I'm afraid I can't make any comparisons with Soft Logik's PageStream 2, which is Professional Page's only serious rival, as I've never used it.

But from conversations with users of both packages it seems that most are polarised either one way or the other, and likely to remain so.

There are quite a few nice touches in Professional Page 4. In addition to supporting AGA graphics (for 256–colour, near photographic quality images on–screen) possibly one of the best additions is its new ability to set up kerning pairs for a font, which means that common letter pairs such as T and o and A and V can be tucked together correctly, instead of relying on the old kerning method to space the letters out according to just one distance setting, which wasn't particularly successful.

Now it is possible to adjust any pair of letters you wish, in any font, and save the new spacings so that they will always be used each time the font is kerned.

What's more, the kerning pair requester is very flexible and easy to use and letters can be aligned simply by dragging them with the mouse. New pairs can be entered simply by typing them in. The result – much more professional–looking text.

Another thing that struck me was that at last Professional Page has the ability to add shadowing to lettering as a style, rather than as a duplicate set of text in a different colour.

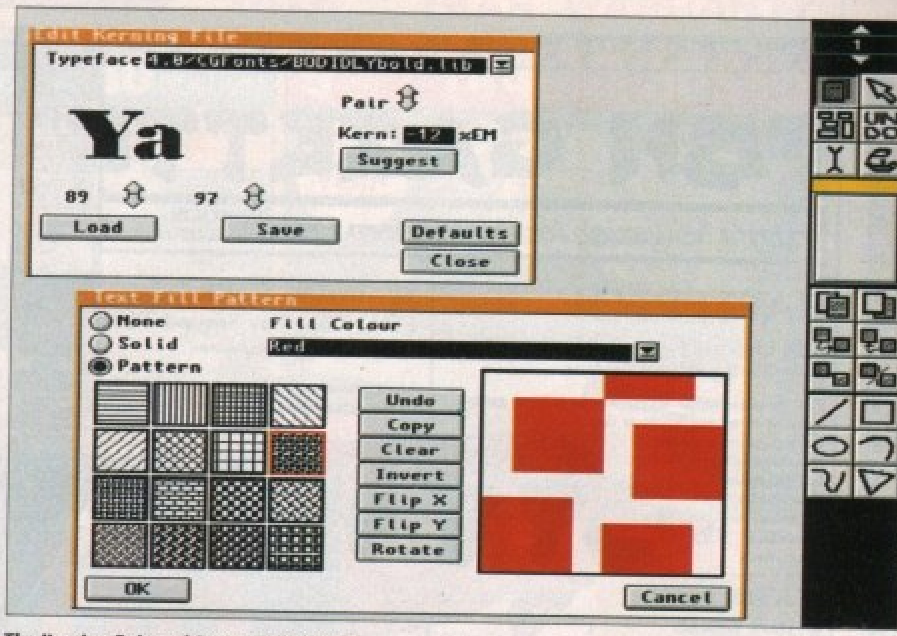
OK, there's presently no adjustment for where the shadow is placed, but it's a start. And now it's possible to properly outline letters and have their faces filled with a different colour (or even pattern) – something which previously required a fiddly trip to ProDraw.

Two more new styles – Superscript and Subscript – have also been incorporated.

Patterns and shadows are something which PageSetter (Professional Page's little cousinp) has had for years, so it's a bit of a relief that Professional Page 4 now has them as well. Their inclusion is welcome because they add another creative tool to the DTP designer's collection and letters, boxes and drawn shapes can all be pattern–filled.

The only snag is that any modified patterns cannot be directly saved and recalled for later use, though they will be saved with document files (but not pages), so at least they'll return the next time you load the document.

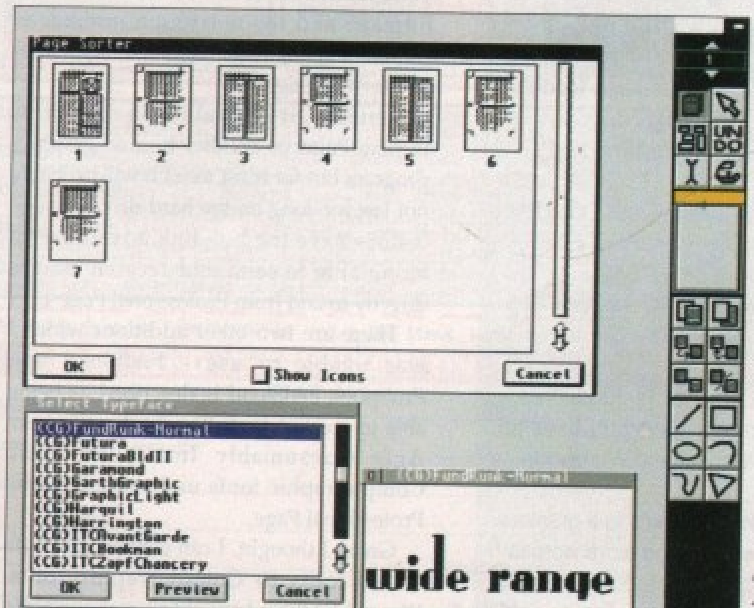
Gold Disk have also finally got around to incorporating irregular text flow around clip art and EPS (Encapsulated PostScript) ➤



The Kerning Pair and Pattern Fill editors



Sixteen colour screen grab



Iconic Page Sorter and Font Preview windows



Shadows, pattern fills, irregular text flow, stick-on notes and AGA support are all part of Professional Page 4



The Graphics Editor is barely adequate for serious work. Deluxe Paint does a far better job

➤ graphics, again another vital addition, which has been far too long in arriving.

Another new feature which may not get the use it deserves is the Paragraph Indent function, making for easy setting of normally indented or hanging paragraphs, and for adjusting the width of the indent itself. All selected text will then be automatically adjusted at every paragraph break.

Previously if you needed to shuffle pages around in a document, Professional Page had you using a numerical requester. Now there's an icon-based Page Sorter which miniaturises each page and displays them all in a window.

Pages can be re-ordered simply by dragging them to a new position, which makes DTP life a lot easier – and you can even get a rough idea of how the final document will balance up.

I'm not sure exactly who the Stick-On Notes feature is aimed it, but I guess it must be useful to someone. It works very simply – click on the yellow bar in the toolbox and a small yellow box appears. Type some text into it, "glue" it where you want it and *vôilà!*, a non-printing note for the boss to berate the DTP artist for retouching his hair with a colour that doesn't match his toupee...

Whereas previous versions of Professional Page required that you had to actually change the font before you could see the results, Gold Disk have thoughtfully provided a Font Preview window which will show a section of text in the new font – so if you don't like what you see you can preview others until you are happy. It's a small touch, but it's a nice one.

> **The improved efficiency will doubtless benefit serious Amiga DTP producers**

The Graphics Editor holds some initial promise – especially for AGA users – until you find out that it is only used for editing bitmaps and the maximum number of colours it can manage is just 32, regardless of chip set design!

Certainly, it's useful if you don't have Deluxe Paint or another bitmap graphics program but for most users it will probably not last too long on the hard drive, though it does have the hot-link advantage of being able to send and receive images directly to and from Professional Page 4.

There are two other additions which I was unable to use – FAISload and ProSpool. FAISload is described as being able to convert fonts bought directly from Agfa (presumably Intellifonts) into Compugraphic fonts understandable by Professional Page.

Great, I thought, I can convert my Agfa Video fonts to Compugraphic fonts. Wrong! FAISload wouldn't recognise the disks. So what disks does it work with then? ProSpool is a Print Spooler capable of addressing more than one printer at a time with more than one print job. Since I only have one printer I can only assume it works OK.

A remaining major omission is that Professional Page still has no text squash and stretch abilities – meaning that the width/height ratio is still maintained when text is resized and, short of a visit to Professional Draw, there is as yet no way of making even the most basic of height and width-only changes to text.

If, like me, you customise your User-Startup assigns ,then you could be in for an unpleasant shock if you are upgrading to Professional Page 4.

When I first tried installing the program neither the PageGenies nor the Text and Graphic Filters were properly installed and the program was not updated from the version of Professional Page 3 which was already on my hard drive – instead a new drawer was created for the new program.

The installation really caused me a lot of trouble and it took me a couple of days and some detective work to finally figure out what the problem was.

It turned out that the Install program was looking to see if and where PPage was assigned – but as my assigns were slightly different to what the Installer wanted it disregarded everything and went its own sweet way. Hence the problems.

Once I had made sure PPage was correctly assigned the installer updated my Professional Page 3 files successfully and I had no further trouble either with Professional Page 4 itself or the strange recoverable gurus and screen corruptions I'd been experiencing every time I quit the program. Gold Disk could easily have made this simple caveat clear in the manuals, but failed to, resulting in a lot of unnecessary frustration. With the release of v4, Professional Page now has several degrees more power and is somewhat easier to use. This improved efficiency will doubtless benefit serious Amiga DTP producers and in my opinion an upgrade should be well worth it.

Better still, if you add the cumulative cost of all the past upgrades together and the initial cost of the original program the first time buyers are also getting something of a bargain. **AC**

● *Gary Whiteley can be contacted by email at drgaz@cix.compulink.co.uk*

Import formats

Professional Page 4 can now load the following formats directly:

Graphics: Aegis Draw, Aegis Draw Plus, Art Expression, BMP, EPS, EPSF, Aldus Freehand3_EPS, GIF, IFF, Adobe Illustrator, PCX, ProDraw Clip and TIFF.

Text: Ascii, excellence!, Kindwords, ProWrite, Scribble, Textcraft, Textcraft Plus, WordPerfect and Wordworth.

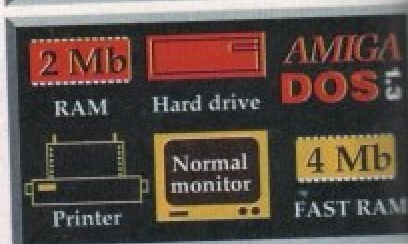
This all means less visits to a graphics converter program, no more worries about having to save text in Ascii and easier access to lots more image data.

Fonts aplenty!

Professional Page 4 can make full use of any true Type 1 PostScript font - so long as the supplied Font Manager software is used to convert it to a format which the program can understand.

With hundreds of fonts out there waiting to be converted (and many more already have been) there's no need to be short on style ever again.

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The bottom line

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Implementation 8/10
Value for money 8/10
Overall 8/10

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Words don't come easy

Professional Page 4 now has a simple text editor for writing or modifying Genies - which are only Ascii ARexx programs after all.

But since Article Editor is almost perfectly suited for this kind of work I just wonder why Gold Disk didn't implement a Go To Line Number function in the Article Editor wordprocessor which is supplied gratis (it could do with it anyway) and forget about yet another text editor.

And while we're on the subject, how come Transwrite and Article Editor continue to have different keyboard shortcuts?

There's now a British dictionary for the spell checker, so there is no longer any excuse to use Americanisms such as "colorize" and "humor".

For some of us this could be a little bit too late - my own addendum dictionary already has 850 extra words in it so I've probably covered most of the major differences and omissions by now. Of course if you're just starting out then this dictionary should be a great help, even if it doesn't contain the word Amiga!

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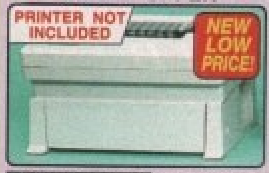
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TVPaint's new hand drawn image courtesy of pencil and chalk



DPaint's style perspective now on offer within TVPaint

AMIGA Update

Power products in full flow

AC continues to keep its finger firmly on the pulse of the ever-changing world of the Amiga



Say goodbye to old friends with ADPro's new collapse operator

First up comes perhaps the prime example of evolutionary software in the form of TVPaint, a program which still holds the title as the Amiga's premier 24-bit paint package even though it's been around almost as long as the Amiga's very first graphics cards.

Now in v2.0, the quest for the ultimate 24-bit painting environment is almost complete, but as ever it don't come cheap – especially if you're the proud owner of a Harlequin.

However there is a slight glimmer of hope for the financially hard pressed Harlequin owners courtesy of a £100 upgrade offer, but alas for any new investors the Harlequin version means a pretty bleak fiscal outlook even though the package has been reduced from a heart-stopping £900 to a miserly £600.

THE ULTIMATE

Although the ACS board is widely regarded as the ultimate in commercial hardware, such a figure is still pretty hard to accept when lesser boards such as the AVideo happily retail at about the same price for the board with TVPaint thrown in at no extra expense.

However it's very unlikely that v2.0 will be part of the aforementioned budget bundle. If we can leave the financial constraints of the Harlequin and TVPaint combination aside, the fact remains that with the two working together you have arguably the ultimate Amiga-based graphics system.

No doubt the most striking physical change has been the ubiquitous dongle which in this version has thankfully and finally migrated to the joystick port rather than being stuck into the external disk drive port.

This not only makes an external drive accessible but also means compatibility with the A4000.

Yet another AGA-friendly addition is the addition of Workbench 3.0-style multiple windows which means several requesters can be left on-screen rather than having to reactivate them every time minor changes become necessary.

Although seemingly unspectacular, this small change can speed up the experimentation process tenfold. On a more dramatic note, scrollable screens have been added so at last it's not necessary to open a big edit file every time a non-standard file size is required.

For example, you can specify an image of let's say 1,024 x 1,024 and then select either 740, 832 or 910 x 576 interlaced or otherwise as the working area using the numeric keypad to scroll around the screen at will.

Although this may not seem exactly earth-shattering, the option to scroll can be a real timesaver given that you have sufficient RAM to handle the image, and of course if RAM is a problem the big edit – alias hard disk image storage – still awaits to save the day.

Another dramatic improvement comes in the form of a much-improved magnifier which at last has detached itself from the control panel – in older versions this meant that using the magnifier meant obscuring large sections of the image with either the magnifier window or the control panel,



An Imagine image by Paul Austin under close inspection of the much improved magnifier

AMIGA Update

usually requiring one or the other to be shunted off and on screen as and when required. Now however everything has changed and the magnifier appears within its own window which can be moved and resized just like a standard Workbench window. Better still it can be used to zoom right out to show images that are larger than the screen area.

Along with resizing and zoom, placement has been improved with arrow gadgets for minor adjustments or alternatively a small hand icon can be applied to produce a placement rectangle attached to the mouse which when clicked on-screen instantly updates the zoom window with the new location.

Aside from the improved interface and therefore speed the organic feel of the software has been enhanced immensely. As any freehand artist will tell you, the major problem with the transition from real world art to computer-generated images is the loss in feel that pen on paper provides.

In an attempt to compensate, TVPaint 2.0 takes full advantage of pressure-sensitive tablets and indeed pressure in general. Obviously not everyone can afford state-of-the-art pressure-sensitive hardware but if the money is available it would be well spent. Whether or not a tablet is at hand the program can still express the touch of the artist at the controls. For those without a tablet, adding feeling can be pretty basic as the software can only apply preset pressure values at the beginning and end of a stroke, moving between the two levels as the stroke is applied..

This new attention to feel can be enhanced further courtesy of two new airbrush effects entitled chalk and pencil. The names pretty much speak for themselves but the effect when combined with pressure can produce startling results.

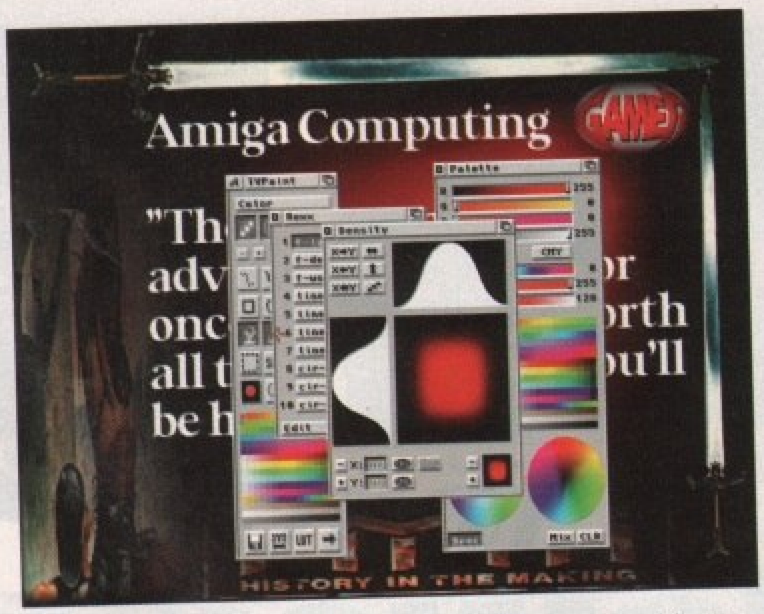
DIFFERENT NOZZLES

Both of these new painting options await in the airbrush requester, with all three sharing an improved spline control allowing different nozzles to be fitted to any one of the three brush types.

As before, the size and power of the brush can also be defined in percentages and tested in a small window at the bottom of the requester.

It's fairly obvious that TecSoft, the creators of TVPaint, have had a long hard look over their shoulder during the redesign and picked up a few tips from the other contenders in the 24-bit paint market such as OpalPaint, which offers scrollable display and effects such as chalk and pencil as part of its repertoire for some time.

As well as simply painting with the new brushes, cutting has also been added and as a result defining brush transparency is a dream. Once a brush is cut from the canvas, simply adjusting the power of the airbrush defines the overall density of the brush when stamped – and of course pressure control can also be applied. Although a big improvement, better brush management doesn't stop there. In fact TVPaint 2.0 is to the best of my knowledge the only 24-bit paint package to offer classic DPaint perspective to brushes.



Multiple windows in action making huge savings on speed

Just like its predecessor, the twisting and turning of the brush is all handled by the numeric keypad with a DPaint style bounding box showing the transition of the brushes orientation in real time.

HIGH POINTS

Although packed with improvements, this has to be one of the program's high points which in one stroke will remove hours of tedious image processing from the creative process. In short it's the finishing touch to what is becoming a perfect if slightly overpriced package. As well as basic artistic modifications, ARexx is also playing a bigger role with much better interaction between the package and the target ARexx scripts with on-screen events actually sending relative data to the target program.

Finally we've arrived at the final two long-awaited improvements, namely a tolerance limit for flood fill operations plus an auto-resize function within the Vlab requester which re-scales the image to fit the screen – something which irritated many professional users in the past.

Well that's about it! All very good news if you can afford the investment. For more information on TVPaint 2.0 for the Harlequin or indeed any of the boards supported contact The Amiga Centre Scotland on 0896 87583/87456 (fax).

ADPro goes rollin' on...

In keeping with this month's trend of expensive software, we'll continue our quest with ADPro2.2, the latest incarnation of ASDG's world-beating image processing software.

After installing the new version, the biggest surprise on boot-up is the interface itself which has forsaken the old style layout and adopted the MorphPlus look – no doubt in an attempt to standardise operation for those users who are lucky enough to own both MorphPlus and ADPro.

However uniformity isn't the only reason for the new look as many of the features previously only available in MorphPlus are now within the reach of ADPro owners.

The aforementioned additions primarily involve display of the rendered data opening with monitor selection whether it be PAL, NTSC,VGA or DFLT – alias your default Workbench monitor – AGA compatibility in action.

Assuming the correct monitor is in place, the next job is to choose from one of the eight available dithering methods which now include Sm Ord and Lg Ord – each of which were only previously on offer within MorphPlus.

In addition to dither selection, both the new modes and the Random dither can be further enhanced thanks to a new dithering amount requester which allows the level of effect to be set from anything from 0 to 256.

On the load and save side, things are pretty much the same as before with the exceptions being an improved Vlab and loader plus and YUVN import as standard. On the save side only one addition appears in the form of an OpalVision saver.

Moving on to the operators, OpalVision makes another appearance with an OpalPaint operator which auto-loads the OpalPaint program complete with the Raw image data from ADPro waiting on the OpalPaint edit screen.

After any tweaks and edits are complete, quitting OpalPaint immediately produces a prompt enquiring if the changes should be reflected within ADPro. Next up in the new operators list comes a variation on the warp operator entitled collapse.

As the name suggests, it collapses the image towards the centre of a definable circle with an optional blur effect available to soften the overall effect. The idea is to provide instant caricatures,

Displace Pixel comes next and unlike most operators is only at its best in combination with another ADPro option, namely composition. When the two are brought together truly impressive dissolves await.

Steve Tibbet – an Amiga programmer already famous for his X series of utilities – adds the next operator entitled Intensity Range which generates a 256-level histogram of the image which can then be trimmed to remove erroneous data or perhaps brighten or darken the image – a good tip is to save using the temp saver before you begin to experiment.

Continuing in the special effects vein is a feature inspired by the Collapse operator. Polar Mosaic radiates a tiling effect from the centre of a definable circle, and like the aforementioned Collapse, blurring can be added as required. The last of the new arrivals offers arguably the most punter friendly operator of them all, namely Simprint. As you may have guessed this particular function allows the simulation of the printed page to be sent to the screen complete with the chosen dithering option.



Never, ever leave a picture of yourself in the hands of an ADPro owner

Obviously this doesn't take into account the idiosyncrasies of your printer but it nevertheless means reams of paper and more importantly large amounts of time can be saved during the usual hit and miss of the printing process.

If you're interested but can afford to wait a little longer ADPro 2.3 isn't far away and promises direct interaction with DPaint. However, if time is of the essence contact MicroPACE UK on 0753 551888. Price: £179.99.

Publishing on a shoestring

Ben Pointer demonstrates that for a very reasonable outlay you could be producing desktop-published pages to rival the quality of this one you're reading!

Almost all professional desktop publishers ply their trade on Macintosh computers, and have done since desktop publishing was invented.

Even a small Mac-based DTP system is going to set you back a few thousand pounds. Those who can't quite afford "the best" are almost always directed towards buying PC-based systems, where both the required hardware and the software are cheaper.

Can I tell you a quick story? A publishing firm I know well recently wanted to move from traditional publishing to desktop publishing.

They brought in a firm of consultants who told them what they needed and gave them an estimate for £50,000 based around Macintosh equipment. For that all they were getting was a couple of computers, a large networked hard disk, a scanner, high resolution laser printer and software.

So they brought in another firm of consultants, who got the cost down to £20,000 using PC-based equipment.

Now this publishing firm is also a printer and does a lot of work for me. They knew my stuff was desktop published, so they called me to ask what I used.

"Oh? What's an Amiga?"

Using Amigas, the setup they wanted would have cost about the same as the PC-based system, but I did quickly show them how they could build two high-powered Amiga DTP workstations for under £4,000 each, workstations that could produce publications indistinguishable from anything produced on the Mac.

This gave them food for thought, and a year later they are still thinking.

But you don't have to spend £4,000 to produce professionally quality publications on the Amiga – it can be done for far less.

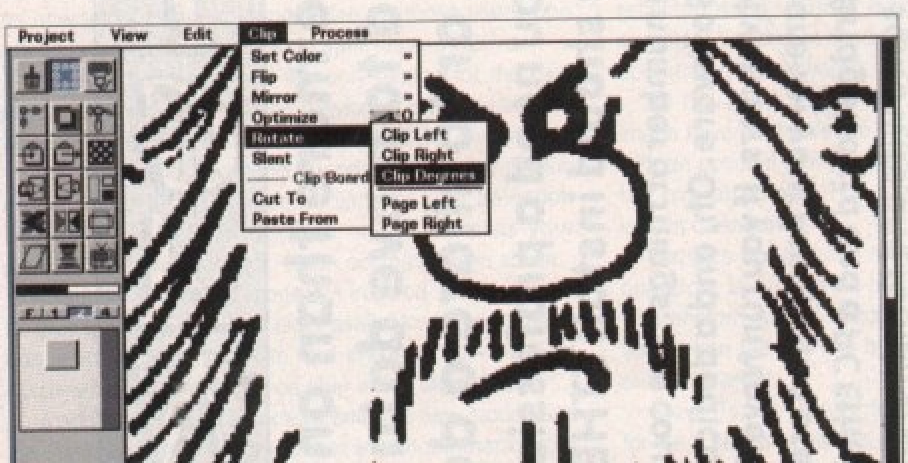
Take one cheap Amiga. An A1200 would be an ideal foundation to build upon because it has a faster processor than earlier "low-end" Amigas, but any old Amiga will do.

Why is a faster processor better? Because many of the functions performed internally by desktop publishing programs are highly complex and can take a while to complete. A faster processor means you won't have to stare at the clock or "sleepy" pointer for so long. If you are publishing to deadlines, time spent drumming your fingers is money down th drain.

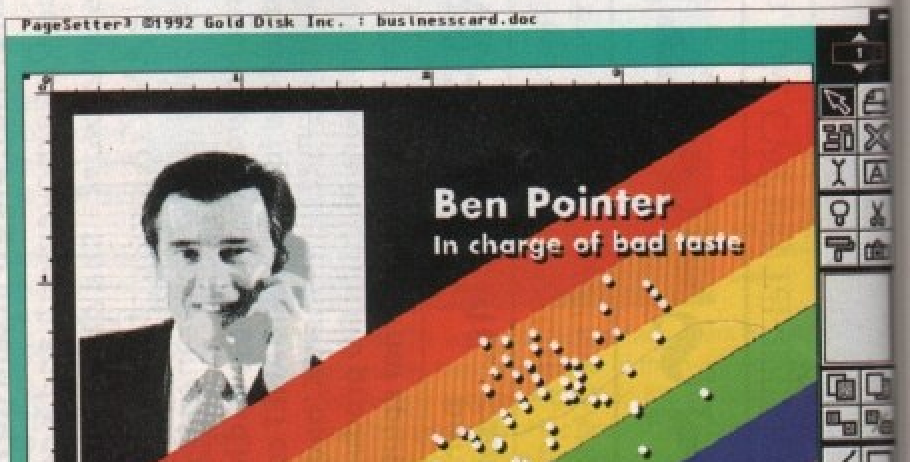
Next, get a hard drive. It doesn't hav to be a fast hard drive or a big hard drive although as it is an important piece o equipment it might be better to steer clea of "bargains". Why do you need a hard drive?

For several reasons. Firstly for spee again. You'll be loading and saving file all the time, and these files can get quite large, so a hard drive will cut down o waiting time. Then there's the question o typefaces.

Having hundreds of them sprea across lots of floppy disks could make an particular face difficult to find. Havin them all in one place on the hard driv makes life very much easier. Same thin for clip art and the many templates yo



For line art scanning you can't beat the facilities in Touch-Up, the software that comes with the AlfaScan hand scanner



Despite the fact that it costs just £50, PageStream3 gives you plenty of creative freedom, including full control over colour

may create for often used layouts.

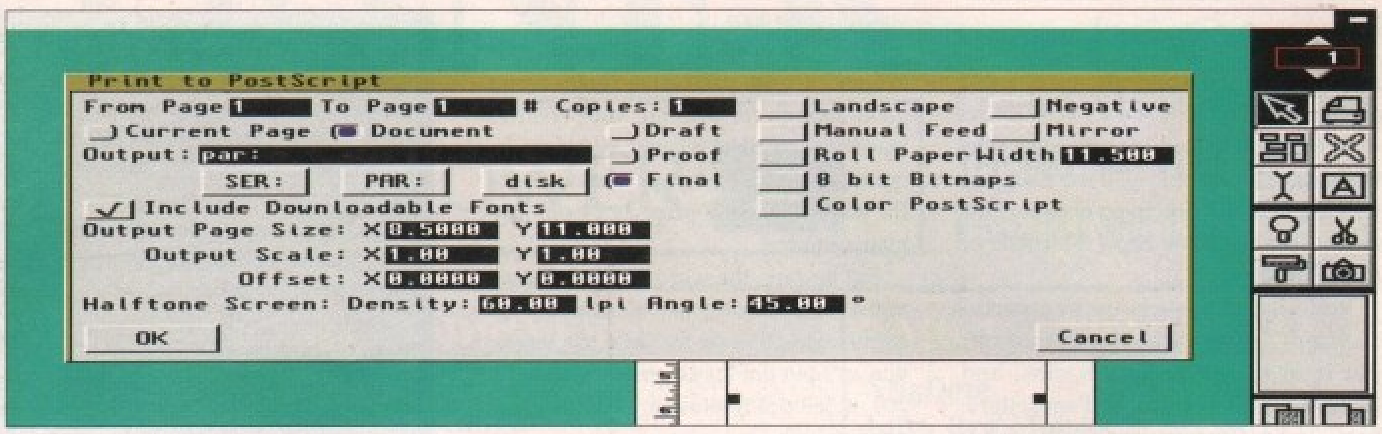
But if you are prepared to sort out a decent floppy filing system for your various files so that any particular file can be brought to hand quickly, and if you can live with slower loading and saving times, then you can get by without a hard drive.

You can't, however, get by without memory. Just about everything to do with desktop publishing eats memory like it's going out of fashion. The absolute minimum amount you need is 2Mb.

With this you'll be able to produce simple documents of one or two pages, provided you don't go too crazy with graphics and typefaces. A more comfortable figure is 4Mb. The more memory, the better. If you can't afford both a hard drive and lots of memory, the memory is much more important.

The next step is software. Choosing software is a very personal thing. It's a bit like buying clothes – what looks good on someone else might make you look a right nerd.

You have to keep in mind that desktop publishing is not glorified word processing. Desktop publishing programs don't work like word processors, so whatever DTP package you buy you must be prepared to learn how to use it.



PageSetter3 can even control PostScript devices, including colour ones, although it doesn't cater for colour separations

There are a few wordprocessors that come very close to being DTP programs. They work like wordprocessors, which makes them quicker to learn how to use, but they contain many DTP features like the ability to import pictures, draw lines and boxes, use many different scalable typefaces, format text into columns, and so on.

So you don't have to buy a "DTP" program in order to publish from the desktop, one of the so-called "document processors" may be more up your street.

The two most important features you need to look for are typeface support and graphics support. Typefaces and pictures are the materials with which the desktop publisher "paints", so if the program you choose limits you in any way as to what you can and can't do with typefaces and pictures, your creativity will be caged.

Ideally you want some kind of support for PostScript Type 1 typefaces – either direct support or some means to convert this format of typeface into that used by your program – because Type 1 faces are the desktop publishing "standard".

Compugraphic Intellifont support is also useful because this is the Amiga's "standard" scalable typeface format. What you don't want is "bitmap" font support. Amiga bitmap fonts are not of a high enough quality for desktop publishing, not even on a shoestring.

As far as pictures are concerned you'll want to be able to import standard IFF-ILBM files. But these are bitmaps, and just like bitmap fonts they will print out with ➤

The essential guide to what to buy

There's not much DTP software and hardware that you can call "cheap", so what follows is a discussion of the least expensive options, keeping in mind that quality is important to desktop publishing. Alas, there are no PD solutions for DTP programs, only for typefaces and clip art.

Publishing software

Of the so-called "document processors" on the market, only Wordworth 2 and Final Copy II are worth investigating. But as both of these packages cost twice as much as PageSetter3, which is a dedicated desktop publisher that comes with an integrated wordprocessor and painting program, it doesn't make much sense to consider anything else.

PageSetter3 is essentially a "little brother" to the famous Professional Page. It directly supports Compugraphic scalable typefaces, and comes with a utility that can convert PostScript Type 1 faces into Compugraphic format.

It will import any IFF-ILBM graphic, and also supports the Pro Draw clip format of structured drawing.

Professional Page is being sold for just over twice the price of PageSetter3, but you do need a hard drive. If you don't have a hard drive and you want more power, then you must turn to PageStream, which is more expensive again.

Typefaces and clip art

Just about every PD library has many disks full of clip art and PostScript Type 1 and Compugraphic typefaces. For the most part these disks are poorly compiled, often with corrupt or missing files on them, and you will have to sort out the mess yourself.

A few libraries take more care, for which they generally charge a little bit more.

Almost all the PD typefaces you'll come across started life on the Macintosh and have been converted by various people to MS-DOS format files, after which various other people have collected them on to Amiga formatted disks.

A lot of them have characters missing from the character set, corrupted characters, only upper case characters and numbers, punctuation marks missing, no kerning information, and so on and so forth. Like a lot of other PD material, it isn't up to professional standards, but then it costs peanuts in comparison.

If you want to "fix" any of these dodgy typefaces you'll need TypeSmith, which costs £135.

But there are plenty of typefaces that are good enough to use as they come, and at about £10 per 100 typefaces you can't really complain.

Clip art usually comes in either IFF-ILBM format, which any DTP package can handle, or Illustrator format, which only PageStream (at the time of writing) will import. There are a few PD ProDraw clip art disks, but nothing to get excited about.

On the commercial front there are thousands of professional typefaces available in either PostScript Type 1 or Compugraphic format, but expect to pay between £30 and £50 per typeface, sometimes more.

And remember, Italic and Bold versions of a typeface are separate typefaces, so a full "type family" could cost you a few hundred pounds.

There are cheaper options, like E M Computergraphic's range of Computer Safari typefaces, which work out to between £3 and £5 each. These are mainly "fancy" typefaces, not the sort you'd publish a long body of text in, but they are of a much higher quality than PD equivalents.

Commercial clip art is thin on the ground and generally quite expensive for what you get. In the end you are probably better off with a hand scanner and a clip art "source" book.

Hand scanners

There are three choices for hand scanners: the DaataScan Pro, the Power Scanner and the AlfaScan scanner.

DaataScan Pro is the cheapest and easiest to use, but lacks some of the more powerful features that the others have. The AlfaScan scanner comes with the superb Touch-Up software, which, as well as being scanning software, is a sort of black-and-white DPaint-cum-ProDraw.

It's brilliant for working with line art scans and produces excellent greyscales from scans of photographs. However, because of its many powerful features, it can take quite a while to learn how to use.

The Power Scanner is a good compromise between performance and price. It produces excellent greyscales and has a fair number of drawing tools for touching-up and working on line art scans.

Printing software

If you want to enhance the graphics output from your printer then the choice of software is between TurboPrint and Studio.

Both will enable you to alter parameters like dither patterns, brightness, contrast and gamma, and have whatever program is doing the printing use those settings.

They are about the same price (£50), but the difference is that TurboPrint uses its own type of non-standard printer driver whereas Studio uses 100 per cent Amiga-compatible printer drivers.

Studio can also output in up to 256 greyscales or 16.7 million colours, whereas TurboPrint is limited to the normal Amiga restrictions of 16 greyscales and 4,096 colours.

Studio comes with drivers that enable it to work with all models of DeskJet (and compatibles) including the 500C and 550C, all LaserJets (and compatibles) including the new 400/600dpi models, and most Epson-compatible 24-pin and 48-pin dot-matrix printers, including a special mode for the popular Star SJ-48 bubble jet.

Canon bubblejets and laser printers are not catered for by Studio because there is a separate "CanonStudio" version of the program (actually commissioned by Canon) available at a cheaper price.

jagged curves and diagonals unless scaled down to small sizes.

So for graphics with smooth edges (like the scalable typefaces) you'll want support for some kind of "structured drawing" file format like Pro Draw clips, IFF-DR2D or Adobe Illustrator.

Roll all these needs up in a parcel stamped "I haven't got much money", put it in the oven for 20 mins, and what you pull out will be PageSetter3. From its sub-£50 price you'll guess that it isn't as fully-featured as the more expensive DTP systems, but it's easily as good as, and in some ways better than, Professional Page and PageStream were a couple of years ago.

There are some other bits and bobs that a well-equipped desktop publisher shouldn't be without. A scanner, for a start. The professionals use very expensive A4 flatbed colour scanners, but with planning and ingenuity the shoestring publisher can do marvels with a cheap hand scanner.

Graphics like logos, signatures, diagrams, "clippings" from newspapers and magazines and cartoons don't require a big flatbed scanner. You can get comparatively inexpensive colour hand scanners as well as mono ones.

And you need a printer, of course. Which one? Well, 24-pins really aren't good enough for printing your creative masterpieces. Inkjet is better, and there are quite a few small inkjet printers available for about the same price as 24-pin dot-matrix printers.

But beware, the word "inkjet" doesn't mean "high resolution"; there are some cheap inkjets that are the same low resolution as 9-pin dot-matrix printers. Look for 300 or 360 dpi resolution, nothing less is good enough.

You want colour? Tch, difficult. You see, the attractively-priced 24-pin colour dot-matrix printers are not all that they are cracked up to be. All of them suffer to some extent from an effect known as "banding" – regular horizontal lines across printouts caused by the way these printers print, and by inaccuracies in the linefeed mechanism.

> *The right hardware and software isn't going to turn you into a desktop publisher...*

If you want to produce "finished" colour documents that are good enough to be handed out as they are or photocopied, then you'll either have to consider buying a colour inkjet printer, or use a DTP bureau. Neither option is cheap.

The Amiga's printing capabilities are actually quite limited. The quality of your printouts, particularly if they contain colours or shades of grey, can be enhanced by special printing software.

Keep in mind that no printer software is going to be able to turn a mediocre printer into a good one, but you can turn a good one into a great one – it's certainly possible using special printer software to get better looking output from a cheap inkjet than from an expensive laser printer.

So, adding up the cost of all the hardware and software discussed above, not including the cost of the Amiga (which I assume you already have) we've spent less than £1,000 and have built a DTP workstation from which you can produce documents that will hold their own with the best.

Take away the cost of the hard drive and the hand scanner, which aren't absolutely essential, and it's less than £500 – basically the cost of the software, some memory, a few typefaces, lots of blank floppy disks, and the printer.

The one thing that money can't buy is what you've got between your ears, and arguably the greatest investment you will have to make is in time – time to learn how to use the software, time to learn about design and typography, time to actually create your work.

The right hardware and software isn't going to turn you into a desktop publisher – time spent at the keyboard will. For design advice you can turn to any publication you can lay your hands on. I don't mean you have to read books, I mean you should study magazine, leaflet and advertisement layouts in minute detail.

Remember design techniques that you like and try to copy them and incorporate them into your own overall designs.

Later on you might be able to afford a book or two that will tell you why certain things are done in certain ways, but always remember that the only reason there are desktop publishing "rules" is so that innovative creative artists can break those rules in order to produce designs that turn heads.

Stick to the so-called rules and you'll produce professional-looking publications that anyone would be proud of – break the rules and you'll knock them cold.

Getting outside help

If your pocket can't extend to a high quality inkjet or laser printer, then you can always take your documents to a DTP bureau for printing.

Several options are normally available, from output on various resolutions of laser printer, right up to films or bromides from an imagesetter.

Normally the bureau will want the file in a format that is readable by a Mac or PC, and this means EPS. Unfortunately, PageSetter3 cannot output in this format. But it can create PostScript files that any bureau will be able to handle and print.

First you'll have to get your files on to MS-DOS format disks, and to do this you'll need a commercial package like CrossDOS (which comes with the 1200, 4000 and Release 2.1 upgrade kit), or a PD utility like MultiDOS, which any library will be able to supply you with.

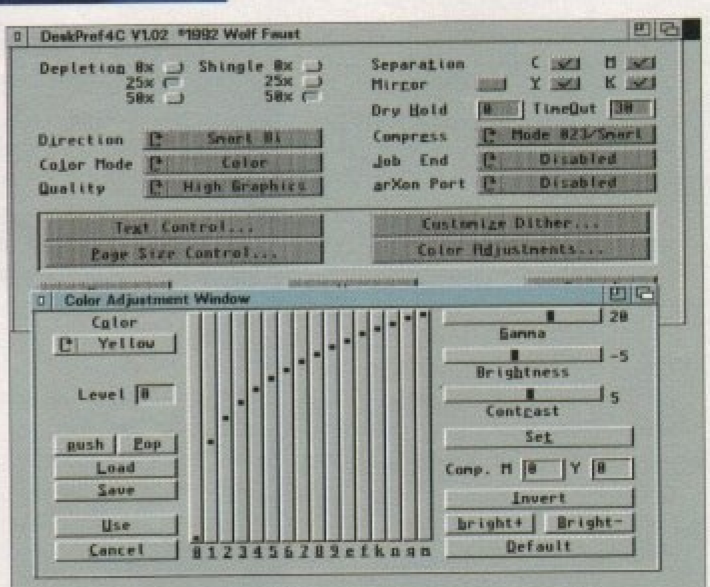
Prices for printing vary. A few pages on a mono laser printer aren't going to cost much at all – about the same price as photocopying – whereas use of the bureau's colour PostScript printer will be expensive.

Time on an imagesetter will empty your pockets very quickly. But whatever it costs, all the prices will be negotiable and will depend on what it is you want printed and how much there is of it.

Most print shops are very friendly and approachable, and if you ask them nicely they may even allow you to bring your Amiga along and hook it up to one of their printers, which will save time messing about with PostScript files and MS-DOS formatted disks.



The mono Power Scanner produces lovely greyscales in 16 or 64 shades



Printer output can be greatly enhanced using software like Studio

Product availability

PageSetter3 is available from Silica Systems, 1-4 The Mews, Hatherley Road, Sidcup DA14 4DX.
Tel 081-309 1111.

Studio and CanonStudio are available from JAM, 75 Greatfields Drive, Uxbridge UB8 3QN.
Tel 0895 274449.

A good collection of PD clip art and typefaces is available from E M Computergraphic, 8 Edith Road, Clacton on Sea CO15 1JU.
Tel 0255 431389.

GASTEINER

GOLDEN IMAGE · ALFA DATA · ICD POWER · bsc

Unit 2
Millmead Business Centre
Millmead Road
London N17 9QU
Tel: 081 365 1151
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AMIGA COMPUTERS

Item	Price
A500+	£189.00
A600	£229.00
A600 40Mb Hard Drive	£399.00
A1200	£379.00
A1200 20Mb Hard Drive	£529.00
A1200 40Mb Hard Drive	£599.00
A1200 65Mb Hard Drive	£639.00
A1200 80Mb Hard Drive	£679.00
A1200 120Mb Hard Drive	£769.00
A4000 120Mb Hard Drive	£2089.00
A4000 030	£979.00

MONITORS

Item	Price
Philips CM8833 Mk2	£229.00
Commodore 1084/5 SDI	£209.00
Commodore 1960 Multisync	£439.00
Gasteiner Multisync Monitor	£349.00

PRINTERS

Item	Price
Citizen Swift 9 Colour	£179.00
Citizen Swift 240 Colour	£279.00
Citizen Swift 200 Colour	£219.00
HP 500	£309.00
HP 500 Colour	£439.00
HP 550 Colour	£550.00

RAM

Item	Price
A500 1/2Mb	£14.95
A500 1/2Mb with Clock	£19.95
A500+ 1Mb	£29.95
A600 1Mb	£19.95
A600 1Mb with Clock	£39.95
A1200 2Mb (PCMCIA)	£119.00
A1200 4Mb (PCMCIA)	£189.00
1Mb Simms (Gvp)	£27.00
4Mb Simms (Gvp)	£89.00
A2000 2Mb-8Mb	£129.00

SCANNERS

Item	Price
Power Mono	£95.00
Power Colour	£235.00
AlfaData Mono	£99.00
AlfaData Plus	£119.95
AlfaData OCR	£165.00
Gasteiner Mono	£89.00
Gasteiner Scan Read	£129.00
DataScan Pro V3	£89.00
Epson GT 8000	£1199.00

HARD DRIVES

ALPHA POWER

* External IDE HDD for Amiga A500/A500+
Internal IDE HD for A1500/A2000
* Memory conveniently expandable to 2/4/6/8Mb by using 1M X 4 Zips
* 100% Compatible
* Easy Installation, just plug in and go
* Auto boot, Auto config and zero wait states

Item	Price
Controller for A500/A500+/A1500/A2000	£99.00
Controller + 40Mb Hard Drive	£199.00
Controller + 65Mb Hard Drive	£279.00
Controller + 85Mb Hard Drive	£299.00
Controller + 120Mb Hard Drive	£329.00

GASTEINER POWER FOR A600/A1200

Item	Price
20Mb + IDE Cable	£99.00
40Mb + IDE Cable	£149.00
65Mb + IDE Cable	£199.00
85Mb + IDE Cable	£279.00
120Mb + IDE Cable	£299.00
Fitting for A600 or A1200	£29.95

BARE HARD DRIVES

IDE (3½")		SCSI	
40Mb	£99.00	50Mb	£199.00
65Mb	£199.00	85Mb	£279.00
85Mb	£219.00	120Mb	£299.00
120Mb	£249.00	210Mb	£319.00

ACCESSORIES

Item	Price
Power Supply A500/A500+/A600/A1200 (High Voltage)	£34.95
Power Supply A1500/A2000	£69.95
Internal Drive for A500	£40.00
Internal Drive for A2000	£45.00
A500 Rom Switcher	£12.95
A600/A1200 Rom Switcher	£12.95
Auto sensing Joystick/Mouse switch box	£12.95
Printer Cable	£6.00
Modem Cable	£6.00
SCSI Cable	£6.00
IDE cable for A600/A1200	£15.00
External Drive for A2000	£49.00
Blitz Amiga	£20.00
ICD Flicker Free Video 2	£199.00
Commodore 64 Power Supply	£19.00
10 Blank Disc	£7.00
3.5" External Drive	£50.00

MICE + TRACKBALL

AlfaData

Item	Price
Infra Red Mouse	£45.00
Mega Mouse	£10.95
Mega Mouse (Mat+Holder)	£14.95
300 DPI Optical Mouse	£27.95
The Trackball	£29.95
Crystal Trackball	£34.95
Optical Pen Mouse	£35.95

Golden Image

Item	Price
GI 600	£13.95
Optical Mouse	£23.95
Brush Mouse	£19.95
New Golden Image 400 DPI Mark 2 Mouse	£14.95

IT'S HERE!... GIGAMEM

VIRTUAL MEMORY FOR AMIGA

Application:
Most recent powerful application for the Amiga (e.g. for graphics, music, animation, raytracing, DTP) require more main memory than is available or possible to integrate. GigaMem is a program which simulates up to 1 GigaByte memory, which swaps onto any mass storage system (i.e. hard disk). Intelligent management accomplishes simultaneous use of several programs in a multitasking mode.

Features:
- Support up 1 Gigabyte Virtual Memory
- Swapping to either a file or a partition
- Intelligent memory swapping in accord with memory access frequency
- Use of the new Amiga<R>OS 2 x interface guidelines
- Comfortable preferences utility with 2.0 style
- Fully multitasking, no system slowdown during disk access
- Easy and comfortable installation program
- Kernel 100% assembler for maximum speed and minimum size
- Intelligent paging strategy a la UNIX ™
- Display of available virtual memory on the Workbench title
- Write cache for increased speed
- Ready-to-use program database of common applications for optimum utilization

System requirements:
- GigaMem works with all AMIGA <R> computers with MMU (Memory Management Unit); i.e. Amiga<R> 2500, 2500/30,3000 or Amiga 500(+)/1000/1500/2000/4000 with 68020 or 68030 accelerator and MMU
- No restriction on type of HD controller and hard disk
- GigaMem is compatible to Kickstart 1.2/1.3 and 2.x

PHONE FOR REPAIRS ON AMIGA!

DELIVERY CHARGES:	UK MAINLAND (not Highlands)
Small consumables & software items.	Despatched by post please check charges when ordering
Other items, except lasers	Next day courier service, £10 per box
Offshore and Highlands	Please enquire
IN ADDITION WE OFFER THE FOLLOWING EXPRESS SERVICES	
Saturday deliveries	Normal rate plus £15 + VAT per box
AM next day	Normal rate plus £8 + VAT per box

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Amiga 600 Pack

- UK specification
- 1MB system RAM, mouse
- Full workbench disks, manuals & leads
- Free game included in pack
- Two Python joysticks
- 100 capacity lockable disk box **£295**

Amiga 600 HD Pack

- Plus internal 20MB hard drive **£395**
- Plus internal 60MB hard drive **£475**
- 1MB extra memory add **£29**

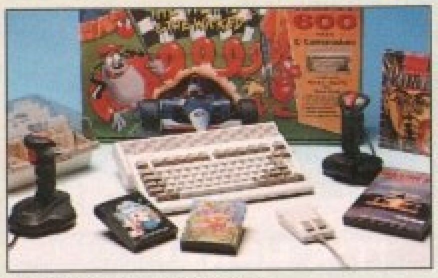


Amiga 1200 Pack

- 32-bit 68020 Full power
- Super Hi-Res graphics
- 2MB Chip memory
- PCMCIA Technology
- Alpha numerical keypad
- Two Python joysticks
- Free game
- 100 Capacity disk box

- A1200 Pack **£385**
- A1200 with 20MB hard drive **£485**
- A1200 with 60MB hard drive **£585**

Weird, Wild & Wicked A600



- Game players paradise
- Push Over game
- Formula 1 Grand Prix game
- Putty Game
- Extra free game
- Deluxe Paint III
- 2 Python joysticks
- 100 Capacity disk box

- A600 weird, wild & wicked pack **£329**
- A600 as above with 20MB HD **£429**
- A600 as above with 60MB HD **£509**

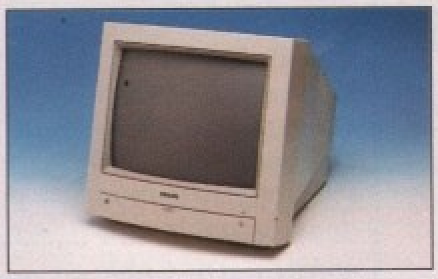
A1200/A600 Upgrades



- Easy to install upgrade kits
- Full instructions and cables where necessary
- All drives supplied with formatting instructions and software

- 20MB HD Upgrade Kit **£109**
- 60MB HD Upgrade Kit **£219**
- 120MB HD Upgrade Kit **£274**
- ProRam 1MB Memory A600 **£39**
- ProRam 2MB PCM-CIA A600/A1200 **£124**
- ProRam 4MB PCM-CIA A600/A1200 **£194**

Philips 8833 MKII Monitor



- 14" high resolution colour display
- High clarity stereo sound output
- Full RGB and composite inputs.
- Free 1.5 metre long RGB cable
- Full UK warranty
- 3 Free games

- Philips 8833 MKII Monitor **£219**
- When purchased with an Amiga 600/1200 **£209**

SVGA Monitor



- 14"Super high resolution colour display
- Professional IBM compatibility
- Complete with cable
- Full UK warranty
- 2 Free games

- A1200 SVGA Monitor **£228**
- When purchased with an Amiga 1200 **£218**

Workstations



- Ergonomically sound
- Facilitates up to three external floppy drives
- Made in the UK
- Strong and robust
- Aesthetically pleasing
- Keep your desk neat and tidy
- Supplied complete and assembled with free mouse mat

- A500 Workstation **£36**
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Peripherals



- 100 Capacity lockable disk box **£5.99**
- Squick mouse **£13.99**
- Mouse mat **£1.99**
- TDK high quality DSD (10) disks **£9.99**
- Computer Mall DSD (10) disks **£6.00**
- 1000 colour disk labels **£12**
- LC20 printer ribbon **£3.49**
- Jet Fighter joystick **£13.99**
- Apache joystick **£6.99**
- Python joystick **£9.99**
- Zipstick joystick **£14.99**

- Vast range of leads for many applications - **Please call**

Scanners



- Allows image processing in a useful and unique fashion
- Comes complete with operation manual
- One of the fastest growing applications for home and professional users
- High specification coupled with cost effective pricing
- **Power Hand Scanner**
- 64 greyscales 100-400 DPI
- Thru'port to printer
- Fully compatible with Delux Paint 4, etc.
- Advanced software
- Power Hand Scanner v2.0 **£93**
- Power Hand Scanner v3.0 **£105**

Music



- Highest quality stereo sound sampling
- Compatible with A500, A600,A1200,A1500/2000, A3000

- Screen Beat Speaker System **£25**
(Adds amplified stereo sound to the Amiga)
- GVP Digital Sound Studio **£49**
- Megamix Master **£37**
- Stereo Master **£34**

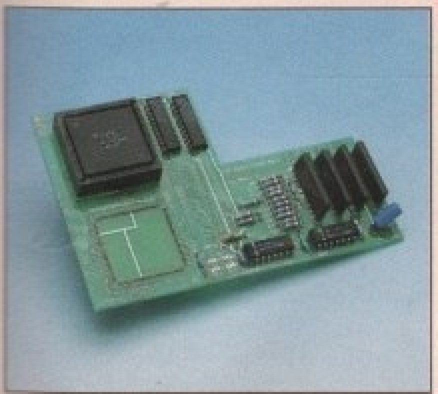
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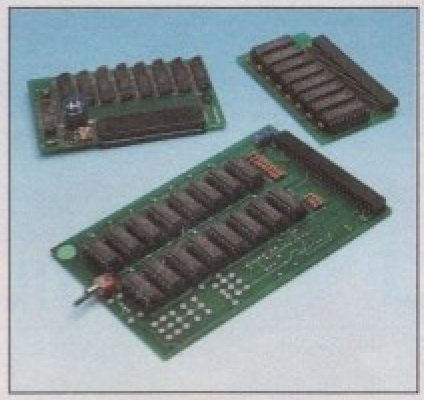
Pro Agnus 2MB



• Provides a full 2MB of Chip Memory for the Amiga 500 and A1500/2000 • Designed and built in England • Supplied with 8375 Obese Agnus • Includes 2Mb Memory on board in the form of low power Zips • Allows the processing of elaborate animation and sound sampling • Provides the same max. chipmemory as the A3000/A600 &500+ • Increases addressable memory space from 9MB to 10MB • Complete with full instructions and flying leads • British made

• Pro Agnus 2MB **£139**
(Free fitting available - Phone for details)

Memory Expansions



A500 Pro-RAM 0.5 Meg. Upgrade
- Chip memory compatible
- British made
- Without clock **£16**
- With clock **£19**

A500 Pro-RAM 1.5 Meg Upgrade
- Gives a full 2MB of memory **£74**

A500+ 1MB Meg Upgrade **£29.95**

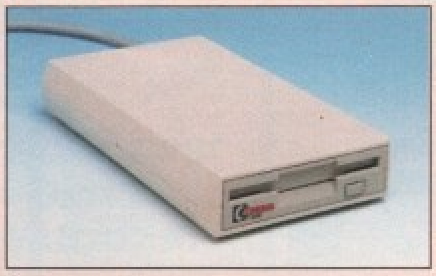
High Current Power Supply



- Allows the addition of peripherals without damage to computer or power supply
- Why risk damaging your expensive kit when one simple investment will ensure total peace of mind now and for the future
- Switch mode design
- Full crow bar projection
- A500, A500+ and A600 compatible
- British made

- A500 Power supply unit **£44.95**
- A590 Power supply unit **£44.95**
- A1200 Power supply unit **£54.95**
- A2000 Power supply unit **£139.95**

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- Renowned and proven reliability
- Top notch specification
- Anti-click
- Long moulded cable
- Slimline design
- High impact plastic

- Cumana external drive **£54**
- Cumana external drive + 100 capacity disk box **£57**
- Cumana external drive + 100 disk box + 20 blank disks **£63**
- A500/A500+ Internal replacement disk drive **£46**

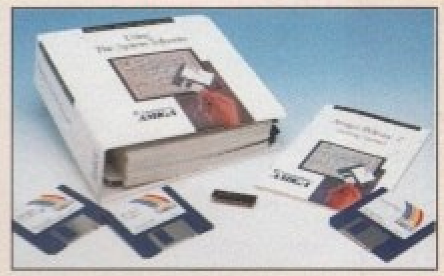
Supra Modems



- Utilise hundreds of PD Bulletin Boards
- Communicate with fellow computer users
- Cuts down on telephone bills by using fast efficient baud rates
- 100% Hayes compatible
- Tone pulse, Auto Dial/Auto Answer
- Standard RS232 Interface
- Programmable number storage
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- Supra Fax Plus (0-9600 BPS) **£148**
- Supra v.3.2 (Fax Modem) **£199**
- Supra v.32 BIS (Fax Modem) **£358**

Chips and Spares



- WTS have sole distribution rights from Americas biggest Commodore chip distributor
- Workbench 2.04 Kit (Includes manuals, disks & chip) **£78**
- Kickstart 2.04 **£32**
- Kickstart 1.3 **£28**
- Kickstart ROM Swapper (Swap between kickstarts) **£18**
- Fatter Agnus 8372 **£49**
- Obese Agnus 8375 **£54**
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- 1MB x 4 Zips **£14**
- 8520 CIA **£13**

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D2....Intercepter Demo
D4....Wild Copper
D10...17Bit Music Demos
D11...World Demos 21
D13...Total Remix Demo
D14/15...Predators(2)
D20/21...Red Sector(2)
D24/25...New Tek Reel3(2)
D26...Total Remix 2 Demo
D27...T.V. Theme
D30...Epic Demo
D34...P.D. Collection
D36...Virtual Worlds
D37...Vectra Sinking Demo
D38...TFF Demo Voyage
D40...Safy Demo
D59...Video Effects 3D
D64...Cult Vector Dance 2
D68...Phenomena Demo
D70...Amos 3D Demo
D74...A Trip To Mars
D76...A2000 GenlockDemo
D81/82...Budbrain 1 (2)
D83...Budbrain 2
D85...Crionics Neverwhere
D87...pirhana demo
D101..Alcatraz M/Demo 3
D102..A Chaplin Demo
D103..Total Destruction
D105..Mr B Demo Comp 4
D106..Walter S.T. Demos
D111..Defcon 1
D117..Aurora M/Demo
D118..Cult M/Demo 2
D125..Precise Demo
D133..Fasination
D136..Goldfire Megademo
D137/138..So What (2)
D139..Devils"No Reality"
D144..The Silents "Ice"
D145..Crystal Symphonies
D148..Ray Of Hope 2
D149..No Brain No Pain
D158/159.Cyborg Demo(2)
D195..Coaxial Comp
D197..MC Disk 1 Coma
D199..End Of Century 1999
D206..Dreamers 3
D208..Avengers M/Demo
D216/217..Bass o Matic (2)
D218..Disorder Demo
D219..Tuff Enuff
D225..Cool Fridge Demo
D226..Hardcrack M/Demo
D233..Hypnautic Hammer
D235..Six Of One Demo
D238..Planetside
D239..Lemmings Revenge
D240..Total Respray
D243..Badrain 3
D244..Phenomena Inerspace
D245..Total Retrial
D247..Pulling The Trigger
D253..CES Demos
D256..Total Recount
D257..Total Rebate
D262..Spasmolytic
D264..D-Mob M/Demo
D267..Sun Connection 2
D270..Kefrons The Wall
D271..Timex Hydra
D272..Electric Demos 1
D274..Defpackers Demo
D276..Cave La Weird
D279..Iraqui Demo
D280/281..Delerious (2)
D290..Popeye Demo
D292..Excalibur Demo
D298..Silents+Anarchy
D301..Subway Demo
D302..Tarot Demo
D303..Despair Demo
D307..L.S.D. Demo
D312..Devils Colours
D314..Trakmo
D315..The Groove Ramjam
D322/323..Star Wars (2)
D325/326..Real Empathy(2)
D328/329..Red Dwarf (2)
D330..Darkness M/Demo
D332..Melted Expirience
D333-337..Odyssey (5)
D338..Beastie Boys Demo
D340..Watchman Demo
D341..Anarchy Smoker Co
D342..Ed 209 The Revenge
D343/344..Hardwired (2)
D346..Wildfire M/Demo
D347..Mindwarp M/Demo
D348/349..Skizzo Demo(2)
D350-352..Treacle Team(3)
D358..Mr Men Stories
D359..Seeing Is Believing
D360..State Of The Art
D361..Mayday Resistance
D362/363..Jesus On E's (2)
D364..Fish Tank
D365..Optimum Pressure
D366..Mind Riot
D367..InThe Can Demo
D368..Dynamic Illusions
D369..Piece Of Mind
D370..3D Demo 2
D371..Lethal Exit

UTILITIES

U1....Games Music Creator
U20...Bip Bap Bros Utils
U21...The Comms Disk
U24...Raiders Ripper Disk
U32...Modem Utils
U33...Puma Tracker
U34...Red Devils Utils 1
U36...Soundtracker Special
U38...Paint,Music,Media
U39...Card Designer
U40...Spectrum Emulator
U41...Red Devils Utils 4
U43...Future Composer
U44...Kefrons Makeboot
U45...P.E Giant Utils 168
U47...Label Designer
U49...Ultimate Icon Disk
U50...Power Comp Utils
U51...Jazz Bench
U54...Uedit
U55...Visicalc
U56...Mandelbrot Generator
U57...Quickbench
U59...Font Designer
U60...D-Paint Fonts 1
U61...D-Paint Fonts 2
U62...Med 3.20
U63...Direct Anim Creator
U64...Crossword Designer
U66...CLI Help + Others
U67...S/Tracker Mega
U68...Ultimate Boots 1
U69...Ultimate Boots 2
U72...Warriors V/Killers
U73...Powerlogo
U74...M-Cad
U75...Journal Home Acc's
U76...Home Utilities
U77...Electrocad
U78...Ami Base
U81...Bootbench V2.0
U82...Slideshow Maker
U83...Catalog Workshop 1
U84...Catalog Workshop 2
U87...Hard Disk Utils
U89-94...Amateur Radio (6)
U95...C-Light + Others
U96...GFX Utils 1
U100...Ham Lab
U101...Sid V2.0
U108...A-Gene
U113...Midi Utilities
U118/119...Video Utils (2)
U132...GFX Utils 2
U133/134...North C (2)
U136...CrossDoss (demo)
U138...Squid Squad Utils
U139...Terminalities V1.0
U140...Squash 1 (2.04 only)
U141...Squash 2 (2.04 only)
U142...Text Plus 3
U144...Dennis Samples 1
U145...Digital Intro Design
U146...Viz Clip Art
U147...Spectrum Emulator
U151...Slipstream V/Killers
U152...Red Devils Utils 6
U154...Amigafox W/P
U155...P.D Utils Docs Disk
U163...Quickbench + (2.04)
U164...Rim Database
U166...Dennis's Hack Disk
U167...Demolisher Utils
U168...Home Business 3
U172...Squelch (1.3 only)
U176...GFX Utils 3
U177...Star Charts
U179-180...Dice (2)
U181...Celtic Demo Maker
U186-206...Track Ins 10-30
U207...Icon Collection 1
U208...Dave Jones Fonts 1
U210...Ultrapaint 3
U211...Chemesthetics
U212...Animated Pointers
U213...Desk Top Publisher
U214...Deskbench Icons
U215...Messy Sid 2
U216...Master V/Killer 2.2
U217...Cheats Disk 1
U218...Data Base Wizard
U223...Ten Pin Data Base
U224...Q-Base Data Base
U226...Games Solutions 1
U231...D-Paint Fonts 3
U232...Games Cheats 2
U234...Flexi Base
U235...Ami Cash V1
U238...Iconmania
U240...Icon Editor
U252...Opticomms 2.0
U254...New Superkillers 2
U255...Protracker v2.0
U256...Atari ST Emulator
U258...D-Copy 3
U262...PC Emulator
U263...Med 3.21
U273...Vidi Fonts 1
U274...Illinoi Labels
U275...600 Business letters
U279...Invoice Printer
U280...Woman V2.02D
U283...Headline Fonts
U289...Amos Updater
U290...Kickstart 2.04

GAMES

G1...Return To Earth
G2...Games comp 5
G3...Dizzy Lizzy
G4...Scum Haters
G5...Parachute Joust
G6...Frantic Freddie
G8...Twintris
G9...Psuedo Cop
G10...Drip
G11...Bug Bash
G12...Asteroids
G13...LLamatron
G14...Escape From Jovi
G15...Moria Adventure
G16...Ground Attack
G17...Megaball
G18...Insiders Club
G19...Various Adventures
G20...Battleforce
G22...Dragon Cave
G23...The Jar
G24...Rings Of Zon
G25...Mayhem
G26...Mechflight
G27...The Tennis Game
G28...Flaschbier
G29...Buck Rogers
G30...Greyslayer
G31...7-Tiles
G32...Mega Comp 1
G33-34...Star Trek 1 (2)
G35-37...Star Trek 2 (3)
G38-39...Mechforce (2)
G40...Klondyke
G42...Car
G43...Games Comp 2
G44...S.E.U.C.K. Games
G45...Sacc Games Comp
G46...Games Comp 3
G48...Rays Game Disk
G49...Games Comp 4
G50...Games Comp 6
G51-52...Trucking (2)
G53...Jetpac
G54...Sys
G55...Quick And Silva
G56...Miniblast
G57...Lamer Game
G58...Games comp 7
G59...Games comp 8
G60...Pom Pom Gunner
G61...Caveranner
G62...Crystal Caverns
G63...Intact
G64...Eternal Rome
G65...Lemmingoids
G66...DownHill Challenge
G67...Lame ST Ports
G68...Paranoid
G69...Puggles
G70...Chainsaw Death
G71...Pirate Pete's Treasure
G72...Serene 2
G73...Castles
G74...Dynamite Dick
G75...Card Games 1
G76...Wizzy's Quest
G77...Growth
G78...Skate
G79...Atic Atac
G80...Napoleonic Sim
G81...Project 1
G82...Lazer Zone
G83...Lemmings Pack
G84...Star Trek S.E.UP
G85...Lettrix
G87...Matched Pairs
G88...Raphaels Revenge
G89...Snake Pit
G90...Zeus
G91...Merv The Mercilless
G92...Blizzard
G93...The Maze Game
G94...Subculture
G95...Hollywood Trivia
G97...Shootout
G99...Holy Grail Adventure
G100...Amos Coindrop
G101...Classic Comp 1
G102...Card Games 2
G103...Super Skoda Chall
G104...Grand Prix Sim
G105...Games Comp 9
G106...Computer Conflict 2
G107...Mission X Raid 2
G108...NU Game
G109...Antep + Slot Cars
G110...Tricky + The Turn
G111...Marble Slide
G112...Games Comp 10
G113...Black Jack Lab
G114...Dungeon Of Madroj
G115...Amiga Columns
G116...Robocop In Iraq
G117...Mutant Camels
G118...Games Comp 11
G119...Number Fumbler
G120-122...Warlock (3)
G123...Card Sharp 1
G124...Bart Simpson
G125...CC Games Comp
G126...Air Ace 2
G127...Breakout Con Kit
G128...Pipeline
G129...Dung Of Doridian
G132...Peters Quest
G133...Star Trek 3
G134...Piperider
G139...Door To Door
G140...Quadrix P
G141...Serene 3
G143...Solid Quad
G144...Omega Race
G145...Mission X Raid 3
G146...Trek 73
G147...Wack In Wonderland
G148...Squats Revenge
G149...Sky Fight
G150...Wet Beaver
G151...Airmania
G152...Wizard World
G154...Totally Frantic Quiz
G155...Chess V2.0
G156...Smash Telly
G159...Billy The Dragon
G160...I-Ching
G161...E-Type
G162...TomCat
G163...Sea Lance
G164...Dizzy Diamonds
G165...No Mans Land
G166...Word Square Solver
G167...Cross Fire
G168...Wastelands
G169...Escape V2.2 + V3.0
G170...Space Blitz
G171...Crazy Sue
G172...Make A Break
G173...Squamble
G174...F-1 Challenge
G175...Othello
G178...Evil Dead Game
G179...Trainset
G180-181...P Comps 1+2
G182...Diplomacy
G183...Tractor Beam
G184...Motor Duel
G185...Game Boy Tetris 2
G186...Water Works
G187...Act Of War
G188...Mutants Games
G189-193...Timelords 1-5
G194...Nirvana
G195-196...Neighbours (2)
G197...Ameoba Invaders
G198...Game Boy Tetris 1
G199...Tetren
G200...Battlecars 2
G201...Dr Mario
G204...Ashido
G205...Cheats Disk 2
G206...Cheats Disk 3
G207...Next Generation
G208...Airport

SLIDES

S1...Ham Pics Show 1
S4...Madonna slides
S5...Moviestar slides
S6...Party Disaster
S8...Immaculate Collection
S9...Simpsons Slides
S10-11...Channel 42 (2)
S12...Bruce Lee Slides
S14...Adams Family
S15...Viz Mag Slides
S16...Boris 13
S17...Docklands Jarre
S18...Dr Who Demo
S19...Napalm Death
S20...Nasa Slides
S21...Exodus 3D Slides
S22-24...WWF Slides (3)
S26...Cascade Demo
S27...Demons Slides
S28...Total Recall
S29...Joe's Slides
S30...Ham Pics Show 2
S31...D-Paint Slides
S32...Neighbours Slides
S33...Roger Dean slides
S34...Iron Maiden Slides
S35-36...Tobias Richter (2)
S37...Joe Trsi Slides
S38...Basket case 2
S39...Eces Slides
S40...Fraxion Devine 2
S41...Fraxion Devine 1
S42...Golems Gate Slides
S43...Chainsaw Slippers
S44...Cry For Dawn
S45...Forgotton Realms (2)
S47...Kick Off 3 Slides
S48...PD Slideshow
S49-52...Terminator (4)
S53...Robocop 2 Slides
S54...Trackmaster Slides
S55...Forgotton Realms 2
S56...Garfield Slides
S57...Pawnbroker Slides
S58...Hellraiser Slides
S59...Night Breed Slides
S60...Raytracing
S61...Horror Slides
S63...Tate Gallery 2
S64...Rock Star Manager
S65...Images Slides
S70...Muscle Mania
S71...Creature Comforts
S72...The Wonder Years
S73...Watership Down
S75...Ferari 348 Pics
S76...Belinda Carlisle
S77...Cher Slides
S78...T-Pau Slides
S79...Freddies Dead
S80...Wendy James Slides
S81...The Invisible World
S82-83...Terminator 2 (2)
S84...Fantasy Pics
S85...Gulf War Slides
S86...Magical Pics
S87...Sun Connection 3
S88...Gulf War Tribute
S89-90...S/Thing Fishy (2)
S91...Eldorado Slides
S94...Textures Disk

ANIMS

A1...Probe Sequence
A2...Ghost Pool
A3...Jogger + Magician 1
A4...Gymnast Demo
A5...Fractal Flight
A6...Basketball Demo
A7...Vangelis Demo
A8...Walker Demo
A9...Magician 2
A10...Pugs In Space
A11...Luxor Teenager
A13...Juggler Demo
A14...Elgato Cat + Flight
A15...Stealthy Anims
A16...Cool Cougar
A17...Mono Cycle Anim
A18...Robocop Anim
A19...Let Me Out 1+2
A20...Mayhem On Wheels
A21...Jugette 2
A22...Shuttlecock Anim
A23...T-Pot Anim
A27...Fleet Manouvre
A28...Billiard Anim
A29...E/Prise Leaves Dock
A30...Starwars 2 Anim
A31...Star Trek Anim
A32...Fraxion revenge
A33...Zeus Anims
A34...Madonna Anim
A35...Stealthy Anims 2
A36...Raiders Of The L/Ark
A37...Bugs Bunny Show
A38...Iraq V's UK Anim
A39...Mike Tyson anim
A40...Knight Anim
A42...Walker 2
A43...Walker 3
A45-46...Light Cycle (2)
A47...Exploding Head
A48...Police Car Chase
A49...Top Gun Demo
A50...Animators Demo
A51...5 Ways To Kill a Mole
A52...Another 5 Ways
A53...Batman The movie
A54...3D Spaceship
A55...Mr Potato Head
A57...Camouflage
A58...VGA Anim 4
A59...Low Level Flight
A60...Vangelis Demo 2
A63...Amy V's Walker
A64...Real Pinball Anim
A65...Franklin The Fly
A66...Porky Pig Anim
A67...Adventures Of Chuck
A69...Bunsen Burner
A70-71...Max Overdrive (2)
A72...Agony Anim
A73...Spaceshuttle Anim
A74...Ghostbusters + Horse
A75...Tron 12 Anim
A76...Alarm Anim
A77...Flight Anim
A78...Piano Anim
A79...Dart Anim
A80...Bad Bird Anim
A81...Holiday Anim
A82...Fillet The Fish
A83...The Boings
A84...Clothes Peg
A85...Miners Anim
A86...Pocket Watch Anim
A90-93...The Movies 2 (4)
A95...My TinToy
A96...T-Pot 2 Anim
A99...Terminator 3
A100...Dolphin Dreams

EDUCATION

E1....Education Pack 1
E2....Education Pack 2
E3....Education Pack 3
E4....Education Pack 4
E5....Education Pack 5
E6....Education Pack 6
E7....Educational Words 1
E8....Educational Games
E9....Math Drill
E10...Amiga Function Com
E11...Devware Ed Comp
E12...Simon Says+S Maths
E13...Kids Paint
E14...Storyland 2
E15...Colour It
E16...Colour The Alphabet
E17...D.T.P. For Children
E18...Algebra
E19...Amosagram

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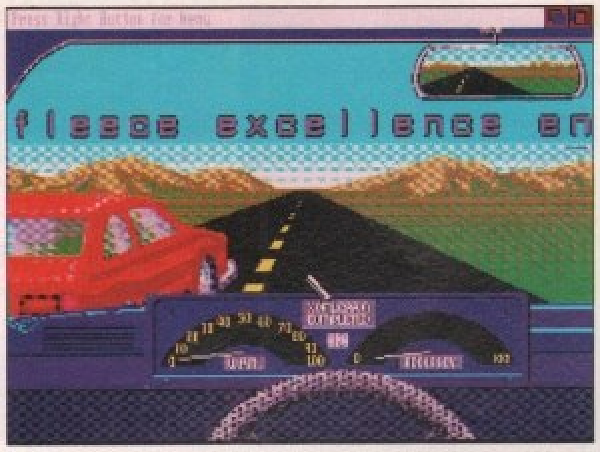
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Racing by letters



Improving techniques in the Workshop

Gonna use my fingers...

Typing correctly will add speed and accuracy to any keyboard user's inputting skills. Phil Morse stretches his pinkies over the latest incarnation of the world-famous Mavis Beacon Teaches Typing tutorial package

Most journalists can't type properly. No, 'tis true, and it's the case from the lowliest reporter to editors in Fleet Street. Those high enough don't worry or don't care, and those not quite there yet are too busy struggling up the ladder to take lowly typing lessons.

All of which is, of course, pig-headed stupidity. As the majority of us know, once you've used a keyboard for any length of time at all, you speed up considerably and reach a stage where you can easily forget that you're physically typing when you're using a program requiring extensive keyboard use. The trouble is that if you attempt to up your speed, mistakes creep in with alarming regularity.

Which is where the catchily titled Mavis Beacon Teaches Typing comes in. Whether or not the stylish woman on the cover of the box is actually Mavis, she is currently in the homes of over a million people worldwide in her previous incarnation, and this new, updated version looks set to continue this impressive ongoing lesson.

The program has two aims – to increase your typing speed, and to improve your accuracy. It has a myriad of features and options, explained both in the very useful tutorial guide to the package and as you are actually using the lessons.

Indeed, it never asks you to do anything without explaining exactly why – a great quasher of bored frustration (your personal level of which you can set, incidentally, depending on your degree of interest and your temper!).

Before you can begin, the program starts by asking you for a few preliminaries. As well as the usual name, it wants to know how old you are (presumably for choosing relevant pieces of text for you to practice on) and what your level of expertise is.

Choose Beginner and you'll be taught which fingers are used to type what and generally hand-led into the lessons. I started on Intermediate, which drops the "which keys, which fingers" bit but is still bearably paced.

PRECIOUS TIME

Most of the typing is done in the Classroom. This is represented on-screen by a keyboard, and a piece of "paper" on which some sample text will appear. You must type underneath the sample exactly what is written, including all the correct spacings and so on.

You have access to the usual delete functions should you make any mistakes, but you're looking for a respectable words-per-minute count, so corrections eat away valuable seconds.

At the end of a lesson, you're told your words-per-minute, your level of accuracy, and given a comment from Mavis – you can even control how talkative the woman is!

The Workshop is similar to the Classroom, except there are meters and gauges showing you all the time how you're doing. There's also a metronome for stopping yourself getting carried away and making mistakes.

All the text you practice is sourced rather than written by the programmers, and includes what the manual describes as "fascinating passages" from the likes of the Guinness Book of Records.

It also seems to have an alarming tendency to contain letters which send your fingers flying all over the keyboard – not too surprising, really. New for this issue of the software is the 10-Key (numeric keypad) teacher, which is great for prospective accountants or ambitious cashiers, but not so good for poor A600 owners. There's a game tied into it too – a checkout with goods passing which you have to type in as quickly as you can on the keypad.

As far as monitoring your progress goes, as well as graphs showing exactly how well, key by key, you're getting on, you can get Mavis to take account of past lessons when advising and commenting, and utilise this and more comprehensive statistics to customise your own lessons, really testing where you need practice.

CONCLUSION

This really is an impressive package. It's clean, clear, colourful, intuitive and above all, one does not feel crippled using a computer to teach oneself typing, as you might suspect could happen.

It's a tribute to the programmers that one can easily get lost in practising and come out a damn sight faster and more accurate – a classic case of using your computer as a means to an end.

With the ability to "save" multiple pupils, meaning lots of people can be recognised by the same copy of the program on the same computer, and well thought-out touches – the ability to choose spacing after full stops, for instance – this tutor deserves to go on and teach another million willing pupils how to type.

Who knows, maybe behind closed doors somewhere there's even a journalist typing to banish his or her self from the dreaded "three-finger typist" syndrome! AC

Word games

In the Arcade section, you race against a merciless driver, but this is a racing game with a difference. Much like childrens' education software, Mavis Beacon utilises the "it's fun to play while you learn" ethos.

And judging by the number of grown adults I've seen in this office plonking pseudo-Fuzzy Felt cartoon bears onto backdrops with every happy click of the mouse, the concept indeed is as applicable to adults as to younger people.

Basically you go ahead or behind depending upon – you've guessed it – the speed and accuracy of your typing, speed showing on the speedometer and accuracy represented on the RPM counter on your dashboard.

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RED = Essential YELLOW = Recommended

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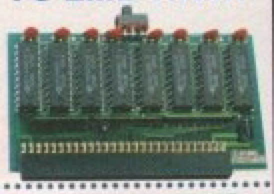
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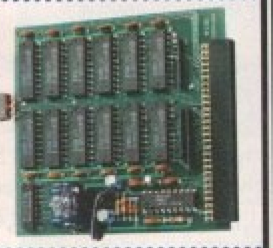
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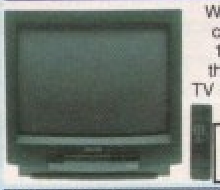


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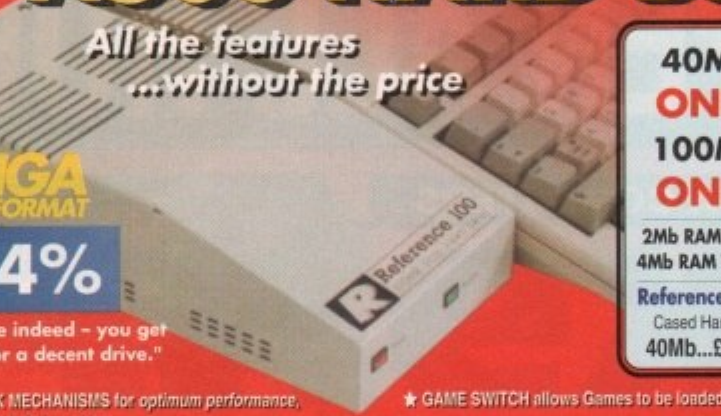
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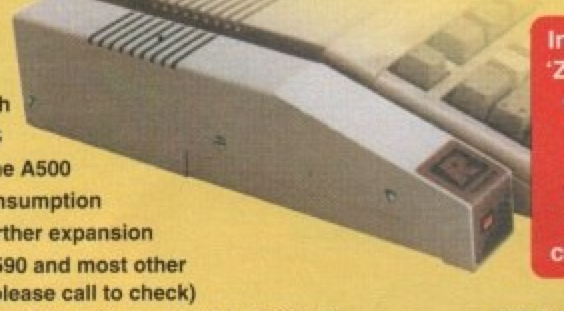
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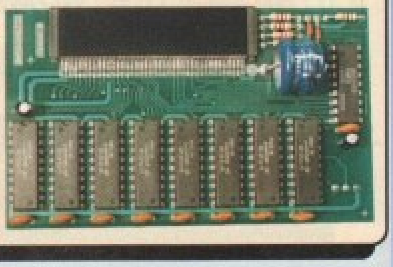
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ARexx made easy

If you've been tempted to get into ARexx programming but have not known where to start, now is your opportunity, as Paul Overaa provides a lucid introduction to this useful language



Despite the fact that the ARexx language forms part of the Amiga's operating system software, many Amiga users still do not use it.

Part of the trouble, from the newcomer's viewpoint, has clearly been the lack of beginner-level tutorial documentation, and the purpose of this article is to help you take some important first steps.

It's obviously not possible to deal with everything in a single article, but *Amiga Computing* does, of course, provide regular more advanced help through its ARexx Insight pages (see page 126).

What do you need to know about in order to jump on the ARexx bandwagon? It is an interpreted high-level programming language which shares with Basic a number of important characteristics, including the fact that it is very easy to learn. ARexx, like Basic, is also a convenient tool as far as program development is concerned.

It is possible to sit down at an Amiga, type a few lines of ARexx code, execute them and see the results, make a few changes, and immediately re-execute the program. If there are any bugs in your code, ARexx will usually stop the program and tell you without the system crashing.

Before you can run an ARexx program you need to have the language installed on your Amiga. This brings us to a piece of software called Rexxmast which is the part of the ARexx system that must be up and running before any ARexx program can be executed. Because of this, the Rexxmast command is usually added to the startup-sequence.

REXXMAST

What foxes a lot of people about Rexxmast is that it runs as a background process so there are no visible indications that the program is active. Rexxmast does, in fact, open a small window to introduce itself as it starts up, but this window disappears after a few seconds.

In reality Rexxmast, despite the absence of any visible signs, hangs around in memory waiting to execute any ARexx programs that come along.

Although Rexxmast acts as ARexx's "master controller" it does not work completely alone. For reasons of efficiency much of ARexx has been implemented as a "shared library" called rexxsyslib, and one of the first things that Rexxmast does is to look in the current LIBS: directory to make sure its library is available.

To create an ARexx program you use a text editor. ARexx doesn't provide a specialist editor because it has been designed to work with ordinary Ascii text files, the ones written by all conventional text editors.

You can use AmigaDOS's ED program, MEMACS, or your favourite wordprocessor providing it can create plain Ascii text files without embedded control characters.

So to create an ARexx program you simply load your favourite text editor, type in the program, and save the text file. From this moment your program will be ready to run.

There are two basic ways in which ARexx may run its programs. Firstly some other application may talk to ARexx and effectively say "please run this ARexx program for me". Such programs could be ARexx scripts you have written or they

➤

could be scripts provided as part of some other package.

Either way, these programs are called ARexx macros and they are used to add new facilities to some main applications program, such as a spreadsheet, database or wordprocessor.

It is, of course, also possible to create standalone ARexx programs, that is ones which can be executed independently. In these cases a separate ARexx system command called RX is needed to kick off the program .

For this reason RX is usually placed in the Amiga's command (C:) directory so that it is available along with all of the other Amiga system commands. To run a script file from a CLI/Shell window you just type RX followed by the program name. For instance:

```
1> rx test.rexx
```

would cause ARexx to load and run the program called test.rexx. It is not strictly necessary to type the .rexx filename extension when running ARexx programs via the RX program because RX itself will, if it fails to find the program name as given on the command line, re-try to find the program after automatically adding .rexx to the end of the name.

Standalone ARexx programs are not, incidentally, required to have a .rexx name extension but it is a common practice because it helps such scripts to be identified from ARexx macros and programs written in other languages.

Macros, again by convention, tend to be given names which relate to the applications programs that they are used with.

Let's assume then that you have Rexxmast up and running, have loaded your text editor, and are now ready to start programming. As you read through the following examples try typing them in, saving the text file, and then using the RX program to run them from a CLI/Shell window:

```
/* Example1.rexx */
say 'This is my first ARexx program'
```

ARexx programs must always start with a comment enclosed between /* and */ character pairs. Since a comment must be present, use it for something useful, such as the name of the program.

Say is a keyword which is roughly equivalent to Basic's Print statement and in this case I've used it to print some static text (delimited by single or double quotes).

The ARexx equivalent of the Basic Input statement, which can be used to collect some input from a user, is Parse Pull, and so if we wanted the program to ask for, and print, the user's name we would do it like this:

```
/* Example2.rexx  - another simple ARexx
program  */
say 'What is your name'
parse pull name
say name
```

Despite some general similarities between Basic and ARexx it's obvious that differences do exist. To start with even though we are dealing with text strings we have not had to explicitly indicate that the ARexx variable name is used to hold a text string.

The reason for this is that ARexx variables are essentially typeless and so do not have to be declared. If in fact and you wrote these ARexx statements:

```
x=26
y=22
say x+y
```

ARexx would know that it was dealing with numbers and would provide 48 as the answer. If therefore you wished to write an ARexx program that converted feet into inches you could do it like this:

```
/* Example3.rexx - converts feet to inches
*/
say 'How many feet'
parse pull feet
say 'This is ' feet*12 ' inches'
```

ARexx does not however always react in the way you might expect. Consider these two programs:

```
/* Example4.rexx */
say 'Hello'
/* Example5.rexx */
say Hello
```

Example4.rexx prints the Hello text as written but with Example5.rexx the result is that the uppercase HELLO is produced. Why? It's because quotes were not placed around "Hello" so ARexx assumed that Hello was a variable rather than a text string.

Now you might think that since ARexx has regarded Hello as a variable, and since this variable was not initialised (ie explicitly set to any initial value) that ARexx would either report some form of error saying that an uninitialised variable had been used, or would possibly print a null string, ie nothing.

In fact ARexx does something completely different again – it automatically initialises the variable to the name of the variable itself! ARexx uses uppercase characters for its keywords, variables and other labels so the program's Hello variable, as far as ARexx is concerned, is the variable HELLO.

You can easily prove that ARexx is treating Hello as a variable by setting it to another value and re-displaying its contents. For instance, the program:

```
/* Example6.rexx */
say Hello
Hello='A New Text String'
say Hello
```

would produce as output the text "HELLO" followed by "A New Text String"!

ARexx always looks at the contents of its variables just prior to using them and, providing those contents are valid for the type of operation being performed ARexx will carry out the specified operation.

It cannot however do the impossible and so if, for example, you attempt to carry out an arithmetic operation on a text string ARexx will stop your program with an "arithmetic conversion" error message.

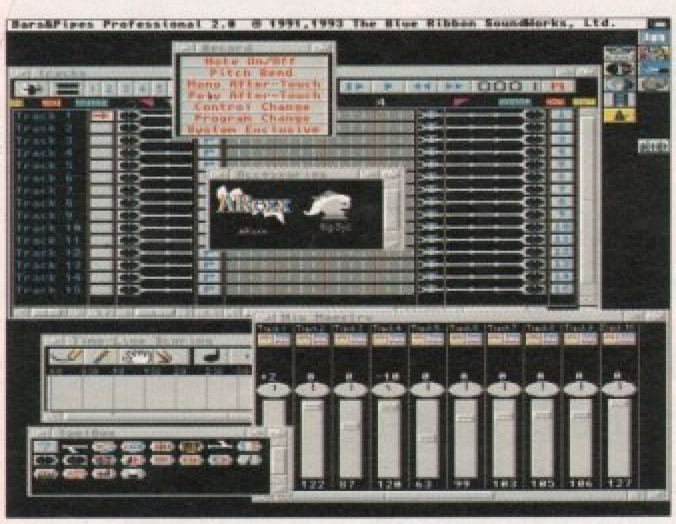
These errors can easily occur if you inadvertently fail to explicitly initialise a variable which is subsequently used to hold a number:

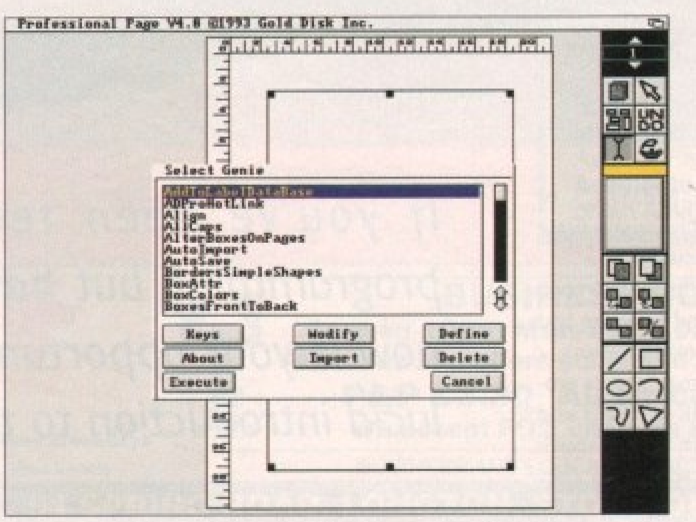
```
/* Example7.rexx  - a common slip */
say x+2
```

Because x was not explicitly initialised ARexx set it to the uppercase string X. Since adding two to a text string is not a valid operation ARexx reports an error.

There is of course far more to ARexx than we've mentioned in this article including a whole range of in-built functions. Powerful external function libraries which can add Intuition window links, extra maths functions and so on are also available and the language itself has a whole range of other advanced goodies to offer.

For now though we've just got time to mention the one area where ARexx will be





Powerful extra features

What else does ARexx offer? Well, for starters it allows you to write functions with their own local variables, offers a whole range of arithmetic/logic operations and provides both simple and compound variables which allow arrays and other data structures to be created.

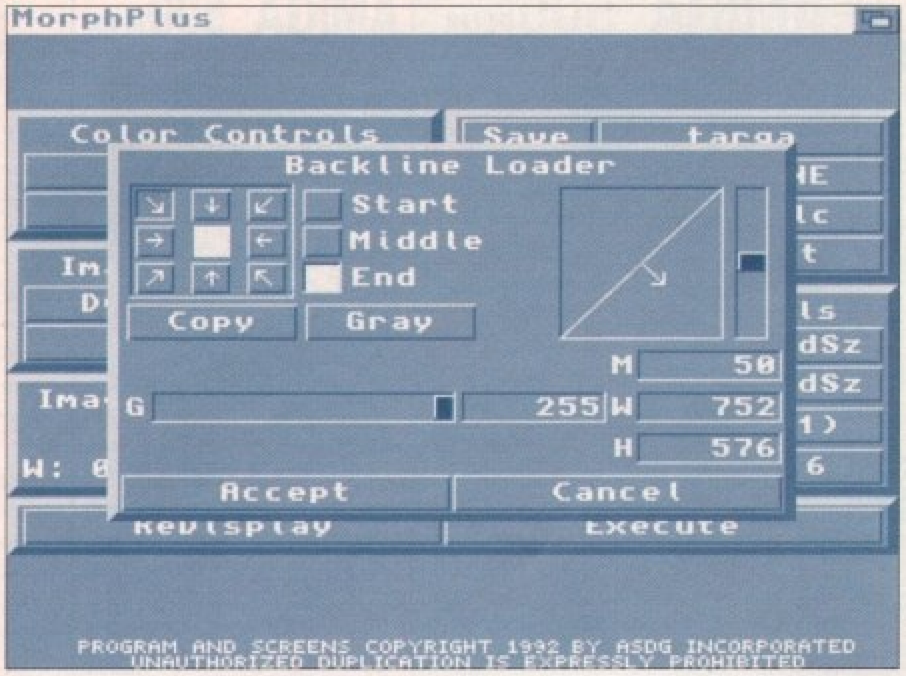
Error-trapping and in-built interactive tracing via a separate trace window is available (making it possible to keep program trace messages well away from normal program output) as well as interrupt mechanisms, powerful string handling and string parsing functions.

There's no way we can even begin to list all its facilities let alone give examples of them but here's one more snapshot of the language.

ARexx, like Basic, provides easy to use loop facilities and the fprogram shown above Example8.rexx, uses a loop to collect input items from the user in order to identify the location of an item stored in a compound variable.

There's not the space to go into detail about how compound variables work so just run the program and think about the potential benefits of a language that allows you to use text string variables to identify elements in array type structures!

```
/* Example8.rexx */
animals.      = 'I do not know anything
   about these animals'
animals.cat   = 'cats have four legs and
   they cannot fly'
animals.dog   = 'dogs have four legs and
   they cannot fly'
animals.horse = 'horses have four legs and
   they cannot fly'
animals.human = 'humans have two legs and
   they cannot fly'
animals.tiger   = 'tigers have four legs
   and they cannot fly'
animals.zebra   = 'zebras have four legs
   and they cannot fly'
options prompt     'What sort of animal do
   you wish to know about ? '
say 'Give me the name of an animal and I
   will try and tell you'
   say 'something about it...'
parse pull item  /* get first item *
do while item~==''
          say animals.item
          parse pull item /* get next
   item */
end
```



➤ totally different from any language you've ever seen.

There is, believe it or not, an area of ARexx programming that involves program statements that have no meaning to ARexx itself which has arisen because of the way ARexx behaves when finding such statements.

In short it assumes that they are commands intended for another application and transmits them to a program whose destination has been determined by specifying a current host address (this is a public message port managed by the host application).

All programs that provide ARexx interfaces set up their own, uniquely named, ports and it is through these entities that data gets passed. ARexx contains an Address command that allows the current host address to be specified.

Why is it useful to have this type of inter-program communication? One reason is that it allows you to create ARexx macro programs for adding extra facilities to other programs (thereby increasing their power).

More to the point you can do it, if you learn how to write your own macros, in a way which suits your needs! Here's a simple example. The SAS text editor provides an ARexx command set.

Some of the commands mimic menu operations; BM for instance selects Block Menu operations and since a UCx command refers to character x, transmitting BM UCE is like selecting End in the Block Menu, and transmitting BM UCB like selecting Beginning.

The commands mentioned above just cause the editor to do a particular job but other commands, such as the GL (get line number) and GT (get text line) produce results that can be sent back to an ARexx macro.

In this case it is the responsibility of the macro code to collect those results and the SAS editor uses the standard convention of providing results in such a way that ARexx can place them in its RESULT variable (the ARexx OPTIONS RESULTS instruction is used to force ARexx to look for these results).

To ask the editor to send the current line of text to a macro we might use this type of code:

```
options results
'GT'
text=result
```

Used in conjunction with the Block Menu commands even these simple editor commands can achieve a lot. You might for instance use a loop to read lines from a block of text into a variable and add line numbers to them in such a way that empty lines get disregarded.

Such a macro could be tied to an Amiga function key so that if, for example, I had marked out this text block:

```
. This is just a test
  to show how a "non null"
  line numbering
  macro might work
```

I'd just need to hit the appropriate function key in order to intelligently number the text lines of the block like this...

```
1: This is just a test
2: to show how a 'non null'
3: line numbering
4: macro might work
```

Packages like Prowrite use similar ideas when tying macros to function keys but the commands themselves are of course totally different to those used by the SAS editor!

In fact it is just this sort of variation that confuses many ARexx newcomers – they think that a package's ARexx interface facilities should somehow follow ARexx's syntax rules. They don't – the syntax of the commands sent to other programs has little or nothing to do with ARexx itself and in fact all ARexx really needs to know when it encounters commands and decides to transmit them to an external host is where those external commands should be sent.

The important point about all of this is that every ARexx product will in fact have its own specialised set of commands which it only will understand. More to the point, the extent of the facilities offered will depend on what the originator of the product decided to include.

The bottom line is that being told that a piece of software has an ARexx interface means nothing unless you know exactly what facilities the developer has provided. How do you know what types of ARexx goodies will be offered with particular packages?

You have to consult the manuals of the products concerned. Needless to say this information will not mean that much unless you are reasonably ARexx communications literate. This is one very good reason for jumping on the ARexx bandwagon as soon as possible!

The mists of time...

Let's get some historical stuff out of the way, ARexx is the Amiga version of REXX a programming language developed a little over ten years ago by a chap called Mike Cowlishaw at IBM.

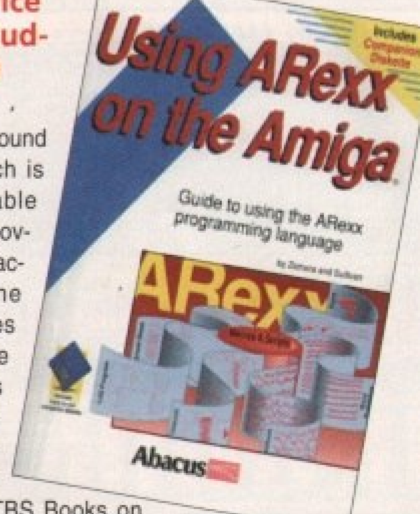
To cut a long story short Bill Hawes took the REXX language definition and produced an Amiga version called ARexx. Five years later Commodore added their support by including ARexx as part of the Workbench 2 system software.

The written word

Using ARexx on The Amiga

By Chris Zamara and Nick Sullivan

Published by Abacus. Price £29.95 (including disk)



This is a good all round ARexx book which is particularly suitable for beginners. It covers the main characteristics of the language, provides a good reference section, and has lots of examples and tutorial discussions. For details contact DTBS Books on 0706 715028.

The ARexx Cookbook

By Merill Callaway

Published by Whitestone. Price: £24.95 (including disk 1 £29.95, including disks 1 and 2 £34.95)

This book is aimed at the more ambitious ARexx programmer and, since you will not find the usual introductory-style lists of ARexx instructions and function definitions, access to other ARexx literature is essential.

Content-wise the book scores highly and there are good accounts of all the standard topics including file handling, the use of ARexx's powerful string functions and the use of ARexx's sophisticated string parsing facilities.

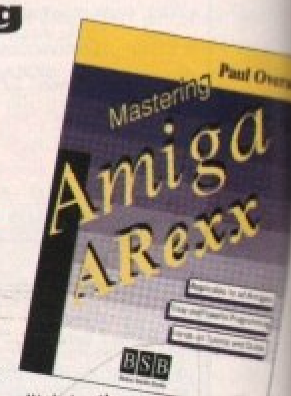
There is also a good chapter on using ARexx and PostScript, and a useful appendix on using ARexx with Art Department Professional. There are a great many examples and as an added bonus the author makes a point of getting across lots of useful programming style tips.

Not for complete beginners but an excellent book for competent coders moving to ARexx from other languages! For details contact PremierVision on 071-274 4407.

Mastering Amiga ARexx

by Paul Overaa

Published by Bruce Smith Books. Price: £21.95 (including disk)



This recently published book is my own ARexx offering and is split into three main sections. Part one provides a tutorial introduction to the language; part two covers the ARexx communications issues from a pure "user's" viewpoint; and part three tackles some of the underlying technical issues.

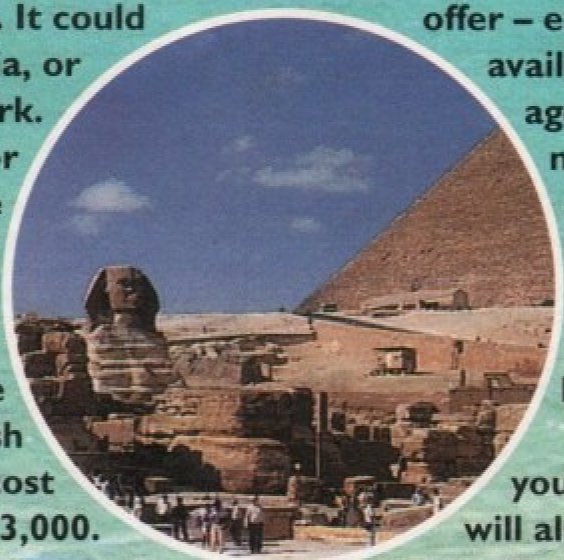
The first two parts (which constitute the bulk of the book) are aimed at anyone, including the beginner, who wants to learn about ARexx.

Part three, which has been included for the benefit of more experienced programmers, provides details of both how the ARexx communications mechanisms work and how ARexx interfaces can be added to your own programs. For details contact BSB Books on 0923 894355.

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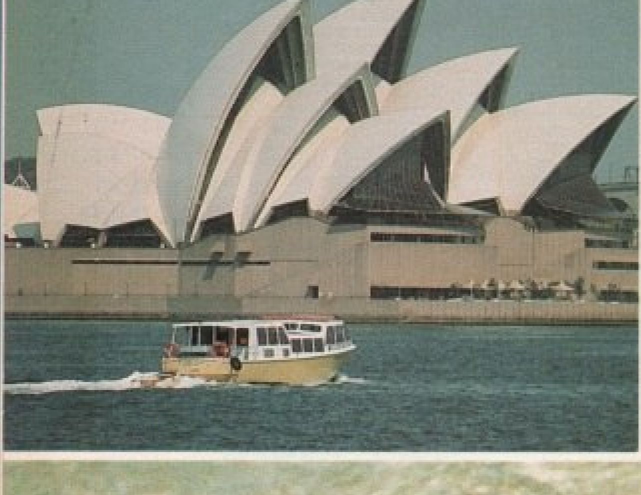
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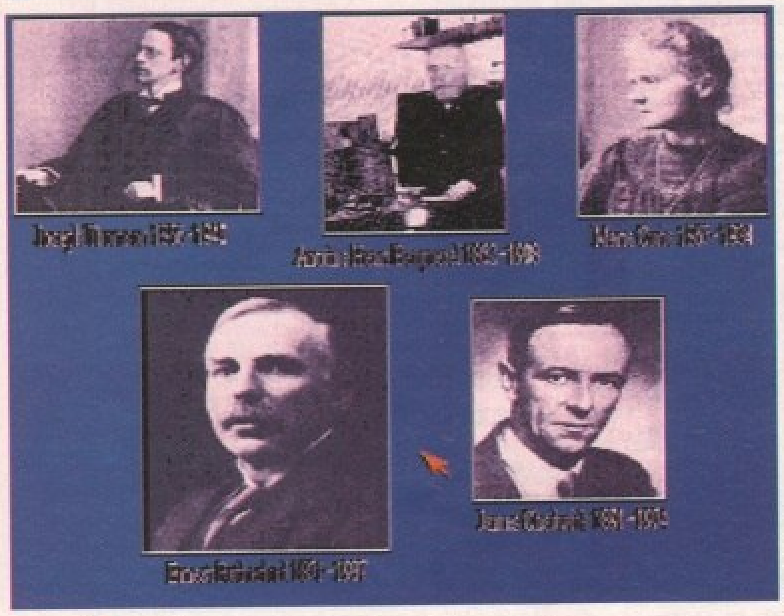
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PUBLIC SECTOR

The most life-like animations, the loudest music demos, the fastest games, the best applications – this month's pile of PD has been sorted and selected for you by our in-house quality filter, Phil Morse

Before we launch headlong into the selection, some news. You can now get OctaMED v2, the acclaimed Amiga soundtracker/music composition program, for free. With the new release of OctaMED Pro, this earlier version is now public domain. Please note, though, that apart from versions one and two, all other versions remain commercial, which means you'll have to pay for them. To the Batmobile...



A gallery of the early nuclear pioneers

Discovery of the Atom v1.5

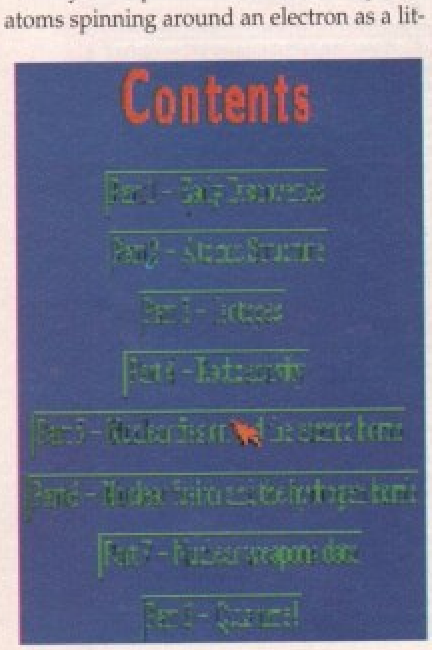
Paul Matthews

This multimedia presentation, which comes on two disks and really does need two drives to run with any degree of fluidity, is an educational look at the development of atomic physics, from the early 19th century pioneers who laid down the foundations to the current day, taking in the horrors of Hiroshima – among other things – on the way.

Very well presented, with a couple of atoms spinning around an electron as a little piece of "animated clip-art" adorning every contents/index page, this program uses many techniques to involve the user and stave off boredom – none of which are at the expense of a good deal of technical accuracy. There are pictures of the pioneers, diagrams, even an animated nuclear explosion, and it's generally extremely well put together.

In some places there are a few too many pages of plain text, but overall this is a bold and successful attempt to bring an involved subject closer to the pupil.

As the program takes no moral stance (something which would be all too easy to do considering the tens of thousands who died at Hiroshima) it couldn't be accused of bias in either direction, so would be a good educational tool for schools and colleges.



The disk covers a broad spectrum

Arcade Classics Vol 1

Carl Harper

Look at this list for a who's who of early arcade games – Asteroids, Centipede, Galaxians, Pacman (whoops, I mean Munchman), Missile Command, and, of course, Space Invaders. They're all on one disk, too. However, as with most of these games compilations, the quality does vary quite a bit from game to game.

At the top of the rung we have Centipede, or Centepede as the programmers call it, which – despite its rather off-putting horizontally scrolling starry background – is a fun interpretation of the original, with all the usual mushrooms, bouncing frogs (in space?) and the like, to keep your finely digitised ship right in the thick of it.

At the other end of the scale is Galaxians, or Girl Actions, which is a blocky and jumpy version of the original with laughably out of place sound effects.

The others are in-between these two, and taken as a whole the disk provides a

Dreams and Visions

This month's brace of sit-back-and-watches takes us first to Japan, and the Japanime Motion Picture from Pathfinder PD. After a quite amusing dig at the Amstrad CPC computer range in its opening segment, it moves on to a slideshow/animation featuring the characters from, presumably, a comic or cartoon. They're all well drawn, colourful, and presented originally and engagingly.

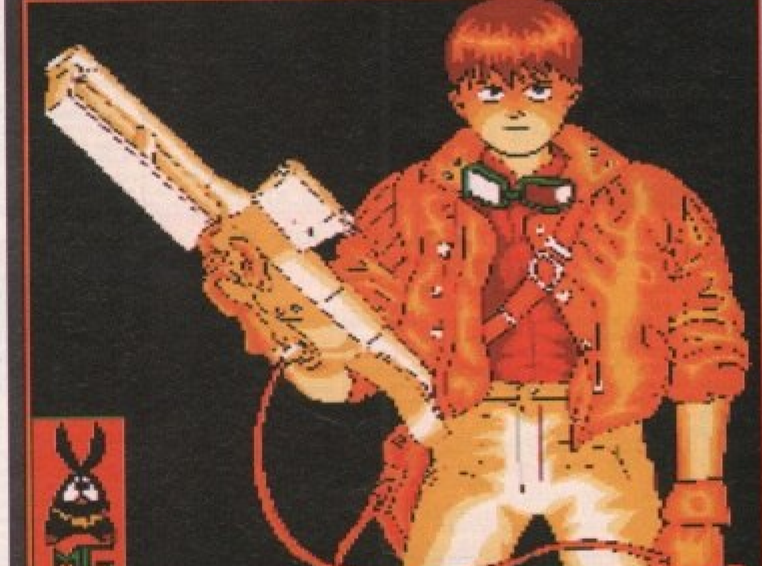
The camera moves from one part of a still to another, people turn their heads to look at you, and generally it's been constructed to try and relieve the tedium of watching completely static slide after completely static slide.

The characters are coherent in looks, too, reminding me simultaneously of the Battle of the Planets and Muskehounds cartoon crews! The whole thing kept me happy, and for someone whose knowledge of current comics stretches as far as, and no further than, The Freak Brothers, that's quite a feat.

Next up is an animation in the classic sense of the word – you know, takes absolutely ages to load, turns out to be about a second long...

Actually, this is very good indeed, the best I've seen in a number of months. It's Charley Cat V – Snow Joke, and it comes from Roberta Smith PD on two disks.

With a title from an old Goon show one might have started to worry, but this turns out to be one of the best examples of what the Amiga is capable of. It features the now-familiar (to



The Japanime Motion Picture

great many moments for sitting back, smiling a world-weary smile and drifting away into a long-lost youth. Or something like that.

Arcade Classics 2

Carl Harper

Not as prolifically populated with oldies as the first volume, this disk does nevertheless contain some gems. No prizes for guessing what Squamble is, and this version has the added attraction of a musical soundtrack composed by Teijo Kinnumen of OctaMED-authoring fame.

Rather crudely put together despite that, it manages to retain some of the feel of the original horizontal scroller.

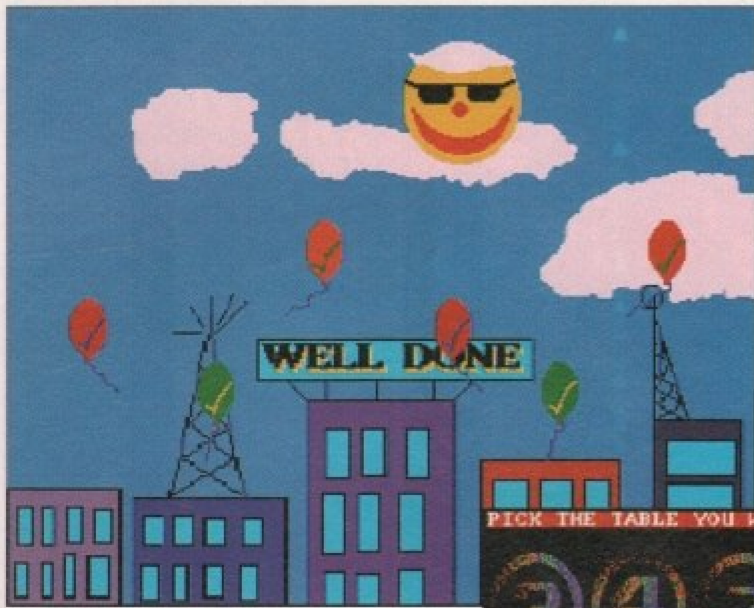
The same can be said of Donkey Kong and this disk's version of Frogger – both are actually poorer than the arcade originals (if my memory serves me well) yet both bring back memories of those days when games were, well, simple...

Tables Test

Charles Denison

Hands up if you can guess what this one's about! We all have to learn them at some stage, and this program might just make it easier for any young children in your life to get through those dreaded tables tests.

It's a simple, colourful educational game – the computer asks the child which table is to be tested, and then poses a number of questions – simple "What is 5 x 6?" types, which, depending upon the answer given, elicit a sunny, balloon-filled summer scene, complete with jolly music and sound effects, or alternatively a dark screen peppered with ugly frogs and finished off with the "Quack quack!" from Radio 1's "Quack quack oops!" jingle – punishment indeed!



The congratulation screen from Tables Test



Choosing your tables in Tables Test

I'm not sure if this would hold a child's attention for long enough to do some real teaching, but it'd certainly be great for last-night revision before a tables test.

A little more variety in what is to be questioned would be nice, as would a slightly more comprehensive statistics, but as it stands it's a useful little tutor.

Bat 'o' Roons

S S Teague

This is a really clever little game. The best games always tend to be based around a simple idea, and nowhere does this philosophy seem to prove itself more than in the public sector.

Basically there are two baseball bats, made a little cuter by the addition of a pair of eyes on each, which you have to use to hit balls – of which there are plenty dotted around – into nets.

If there is only one player, the computer will take over the spare bat, but this game really should be played with two.

It's akin to the kind of frantic games you see on children's action shows, involving lots of frantic shouting and barrels of laughter – or at least, it was when we played it!

The nets move up and down each side of the screen to makes things a little awkward for you, and there are the usual selection of power-ups and bonuses to help stop you getting bored.

Available as licenceware directly from the author at present (address at end), this is one of the best Amos games I've seen in quite a while.



Bat 'n' ball spectacular in Bat 'o' Roons

Supersound v3.2

KBE Software

This packed (99 per cent full) disk contains what is claimed to be the very best PD sampling software available for the Amiga. It certainly looks thorough before you've even loaded it, with a proper installation program and documentation.

It continues to be impressive after loading, ditching the polished, sleek but ultimately counter-productive flashiness of programs such as AMAS, and instead presenting a no-nonsense interface packed with useful features and arranged in as uncluttered and functional way as possible.

All the usual features are there – you can sample in mono or stereo, load and save samples in a variety of formats, enjoy full cut and paste editing – even keep track of how many hours you've been hunched over your monitor fine-tuning that elusive sample by virtue of the clock and alarm!

It has not one but two effects menus, positively bristling with goodies such as an effect called Metallic and another (no guesses what this one does) called Bass Boost. There are more effects here that ➤

PD, please!

If you're a library, and individual, hell if you're a director of ICI, I care not – just send me any PD you may have written/acquired/stolen/magicked from nowhere and I'll judge it solely on its quality and who knows, you could be reading about your own program right here next month.

If you do decide to submit work, please state clearly on the disk label exactly what it's called, who it's from and a contact address/phone number. State all the same information on any printed material you send, too.

Do this and your disk will stand a much better chance of being reviewed. Now get those thinking caps on and those fingers a-tapping.

anyone who's seen any of the first four, anyway) Charlie and his girlfriend on a bit of a winter sports holiday.

Unfortunately, as always seems to be the way in cartoons, Charlie's arch-enemy Tiger has come along too, and is hell-bent on making things decidedly sticky for poor Charlie and girlfriend.

The animation – although limited to an extent by the Amiga's hardware – is great and the scenery is very colourful.

The sound effects and music – appearing for the first time in a Charlie animation – are really atmospheric and add a great deal, and the whole product is a shining example of imagination and practical know-how on the part of Antony Whittaker, the programmer.

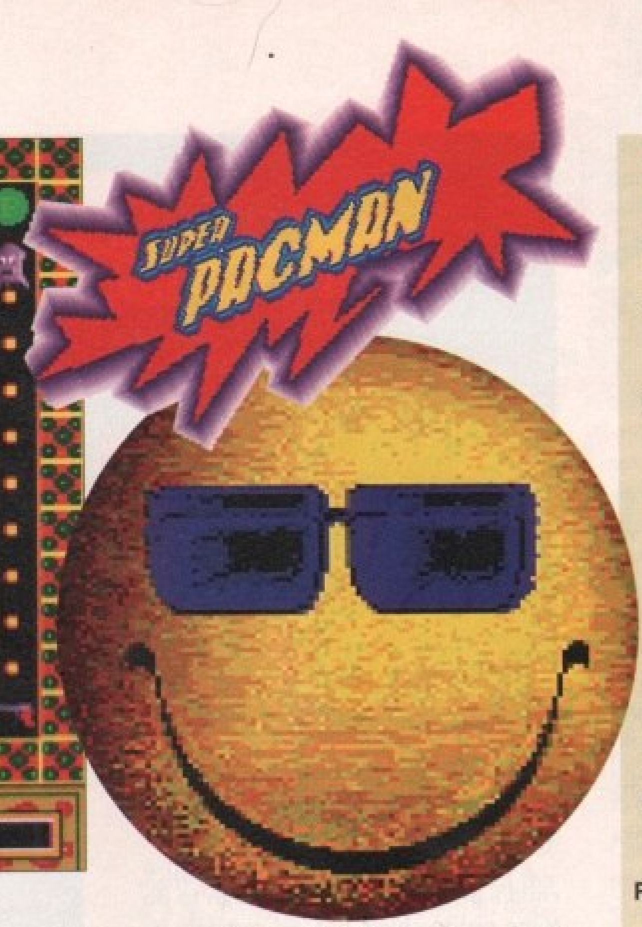
Interestingly, Antony has retained copyright on the characters while making the game public domain – a smart move, judging by their quality. If you're going to buy just one of the animations we've covered in the last three months, buy this one



Japanime – pictures of a high graphical standard



Super Pacman has a wide variety of baddies



➤

most commercial packages!

It's a great program, but remember, unless you simply want to mess around with previously recorded samples, you're going to need some sampling hardware to plug into your Amiga.

Still, at this price you're probably best buying a sampler (they always come with their own software) and trying Supersound v3.2 against the software supplied – you might just find yourself switching.

Super Pacman takes Munchland

Deja Vu

Starts impressively, does this Pacman-variant, with a look at Super-Pacman (normally a "mild mannered reporter" – shouldn't that be janitor?), a peek at his arch-enemy of the Munchie ghost world, and a flash of his licence to kill, as it were. At the start of each screen – and there are 25 to battle through – Super Pacman flies onto the maze, but from then on in it's pretty standard Pacman stuff, only more pedestrian, due in part to the small graphics and in part to the slowness of the game.

There's very little arcade tension and the adrenalin doesn't take much of a hammering at all. Still, you can pick up guns and fill the ghosties full of lead, which is, of course, too unfeasible to be sick, but even this gets boring after a while.

On the plus side, there are some amusing weapons and bonuses knocking about, and the music – understated, underground dancey stuff – is certainly listenable.

If you're a Pacman freak, you'll have to have it whatever, though, won't you?

Where to get 'em

Bus Stop PD, 5 Westbourne Road, Marsh, Huddersfield HD1 4LQ

Charles Denison, The Beeches, 58 Hough Lane, Anderton, Northwich CW9 6AB

Carl Harper, 9 Hale Road, Widnes WA8 8SF

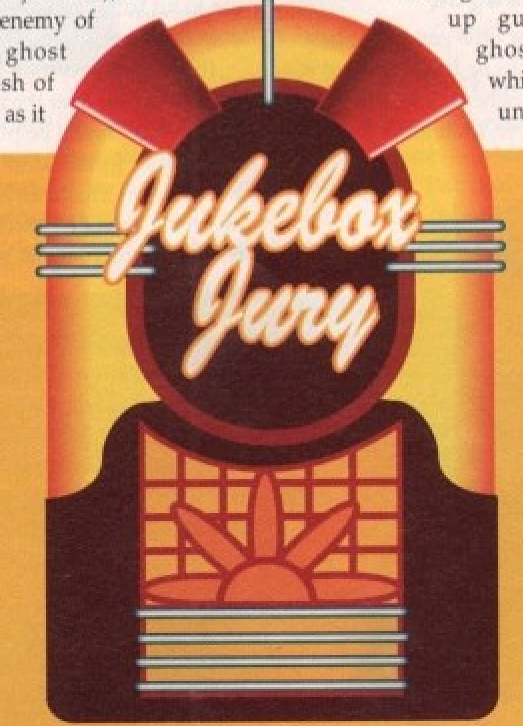
KBE Software, 8 Church Street, Kingsley ST10 2AA

Pathfinder PD, 41 Marion Street, Bingley BD16 4NQ

Paul Matthews, 11 Frewyn Close, St Leonard's on Sea TN38 9RG

Roberta Smith PD, 190 Falloden Way, Hampstead Garden Suburb, London NW11 6JE

S S Teague, 50 Winstam Road, Trevethan, Pontepool NP4 8E2



Two music disks particularly stood out this month, both very different from each other.

Let's start on the mellower side of things, with **Quadriga Acoustic Silence** from Pathfinder PD. This disk, which is very nicely presented, starts with a menu which – among other mainly superfluous options – allows you to choose which of the six tunes contained therein you wish to listen to.

The quality of presentation shines through in such things as bars to tell you how long until a file is dearchived and ready to play, or the timer telling you, CD-style, how much of the track currently playing is left, and even a cheeky little Garfield whose appearance frankly baffles me, but there you have it.

The sound quality is well up to standard, and the tunes themselves – although far from original – are well put together and pleasant, if decidedly "computery" in their feel.

"Eternal Sensation" is one of my favourites, if only because to my ears it bears more than a slight relationship to the opening minute or so of New Order's "Subculture", but no tune is really bad.

If you're looking for an example of what you should, with some practice and a modicum of talent, be able to achieve on the Amiga using just its internal sounds, this is a typically inspiring collection. It certainly inspired our fine-tuned jury, who voted a big "Yes!".

They'd also have voted "Yes!" for the next demo, and in fact they probably did, but the mechanical onslaught of **Continental Tech Dance – Mayday Resistance** (Bus Stop PD) droned out all their mumblings good and proper.

Musically this disk contains deep, uncompromising European techno, as fresh as it is exciting, and of an extremely high standard. The author compares his program to Jesus on Es, the now near-legendary dance double-disk demo, and the similarity is certainly there, although this is arguably even better.

The graphics are pretty stunning – all fast-moving, stroboscopic and generally mind-altering stuff. There are touches of humanity in there too (dancers, the way the beat is indicated as being about to change tempo on-screen) – what more do you want?

It's well mixed, the graphics are excellent, so get a copy and get it looping in the corner at your next party. You know it makes sense!

Finally, if you've got something musical and original, send it to me. Oh, and if you think it's good enough for me to pretend I didn't just say "original", send it anyway. Laters!



The pleasing Quadriga interface



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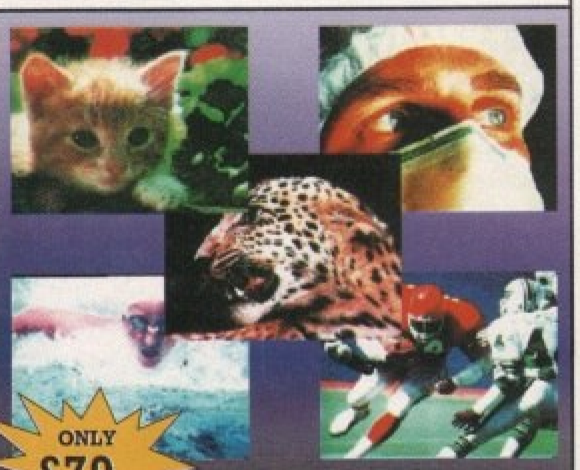
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X-COPY PROFESSIONAL caters for all your needs, included in the package is a small hardware interface that plugs into the external disk drive port at rear of the Amiga and your external disk drive (if you have one) plugs into the back of the interface. This allows the Digital Bit Image Copy Mode to use the Adaptive Pulse Width Modulation routines to backup virtually all known discs.

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WorkStation 2 is here

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Have you got the very latest Amiga? If so, you need the ultimate Workbench 2 accessory. Whether you have an A500 Plus, A600, A1500 or perhaps a Kickstart upgrade on a 1.3 machine, the time has come to take control thanks to the amazing WorkStation 2. It's the disk the Amiga world has been waiting for...

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This is just a small selection of the tools and utilities on offer. Others include ScreenX and GFXMem.

For the artists out there Icon Edit awaits to produce customised icons, while NickPrefs adds the option for a 16 colour designer backdrop, animated pointers and non clicking floppies. Screen blanker provides a tailor made designer look to your system and transforms the appearance of your Workbench screen forever.

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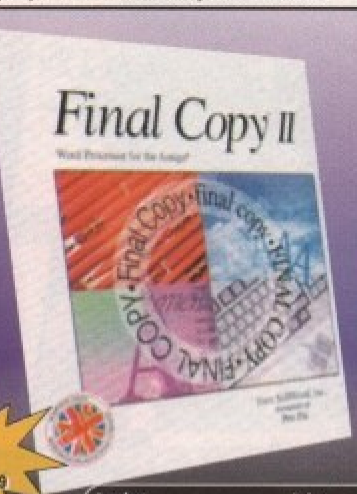
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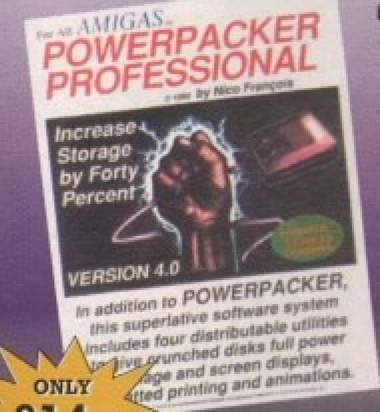


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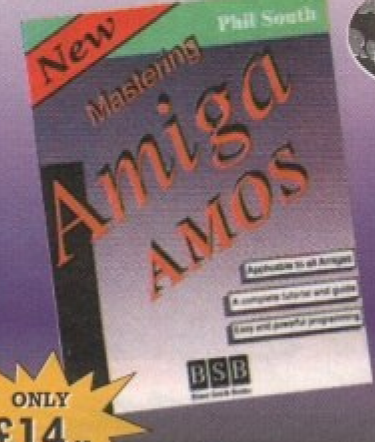
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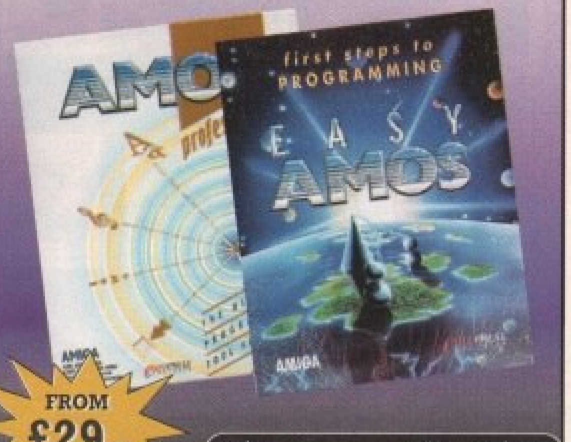


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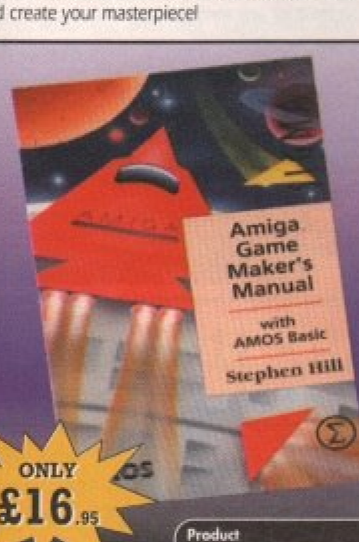


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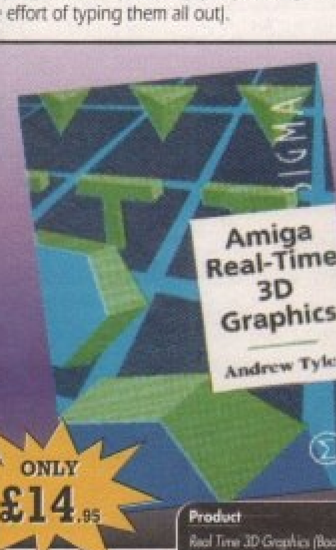


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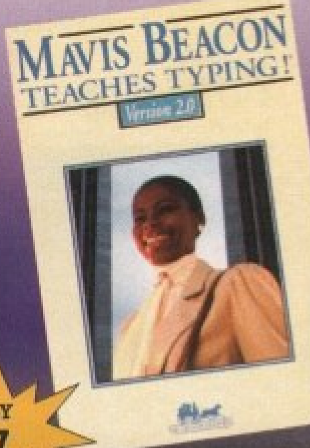
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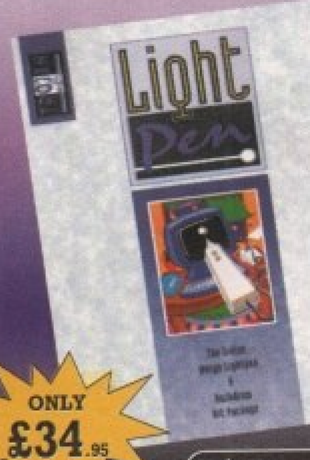


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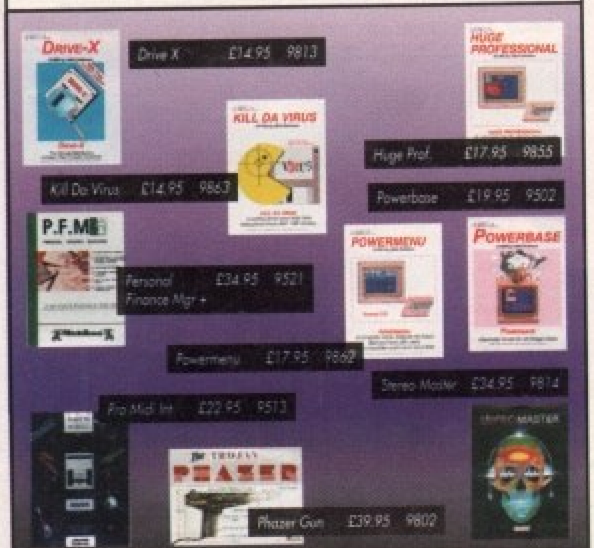


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Recently, I accidentally damaged the internal floppy drive on my four-month old Amiga A600, and as the damage was caused by myself, repair is not covered by the warranty scheme.

I have telephoned numerous dealers for a replacement but have been informed that one is not available.

My biggest shock was yet to come, however, when I telephoned the Commodore spares desk to be told a replacement was available from them for £181.66 plus VAT. I could not afford this sum and on principle wouldn't pay nearly £214 for a drive when the computer itself is retailing for about £250.

Unless you, your readers, or your advertisers can help, I am stuck with a redundant computer.

K Shaw, Wigan

You seem to have been told a load of old tosh. The drive fitted to the A600 is usually a standard Chinon 3.5in of exactly the same type as that fitted to the rest of the range with the exception of the A4000.

This means that you can buy a replacement floppy from the usual sources and fit it yourself in five minutes flat.

Total cost should be a lot less than you have been quoted, a typical example being the Power Computing replacement internal floppy which retails for £45.

Instalment plan

After buying issue 58 of your excellent magazine I was very pleased to see Maxiplan 4 on the CoverDisk. I already had a very old copy of the program which, annoyingly, wouldn't work on my accelerated A500 Plus.

I eagerly booted up ready to install the newer version 4, up came Workbench, in went Maxiplan. What, no install script? "Oh, well," I thought, perhaps it doesn't need one, so I just copied the relevant files across to my hard drive, then ran the program.

Excellent! It runs, but requesterx keep coming up asking me to put Maxiplan4 in my drive, and the loading requester will not change from the default. Also, the help function doesn't work.

Please tell me how to install the program properly. I've tried everything I can think of, including assigning, paths, and tooltypes, and I'm at my wit's end.

Martin Grundy, Farnworth

Ok, one final sorry to everyone for not putting our own hard drive install script on the Maxiplan 4 disk. We went out of our way to pack as much as possible onto the single disk that there wasn't the room.

To ensure the trouble-free operation of Maxiplan 4 on hard drive, boot first from your normal system partition, insert the Maxiplan CoverDisk in any drive, double click on the disk icon, then drag the Maxiplan drawer icon to the hard drive partition in which you'd like to store it.

Once this is accomplished, add the following Assign statement to your startup-sequence:

```
ASSIGN MAXIPLAN4: DH0:
```

where we assume that DH0: is the partition into which the Maxiplan drawer has just been dragged. Obviously, if you dragged it into a partition called WORK:, the assign would go something like:

```
ASSIGN MAXIPLAN4: WORK:
```

Just make sure that MAXIPLAN4: is the directory or partition containing the Maxiplan drawer. Next, copy the Explode.library from the Maxiplan disk to your LIBS: directory using the command:

```
COPY MAXIPLAN4:LIBS/EXPLODE.LIBRARY TO LIBS:
```

Unfortunately, the Explode.library will fail to initialise itself when transferred to hard drives running under any Workbench prior to 2.04, a bug which is both baffling and irritating.

It can be fixed by copying a file found on this month's CoverDisk to the C: directory of your hard drive. To do this, boot from your hard drive, then type:

```
COPY AC61:C/EXPLOAD TO C:
```

and insert the line:

```
RUN >NIL: <NIL: C:EXPLOAD
```

close to the beginning of your startup-sequence. Sorry for the hassle, folks, but this is a problem we didn't spot on the CoverDisk.

Once the above steps have been followed, Maxiplan will work fine, as will the help function, and the program will be able to find its default worksheets directory.

There does not appear to be a way to change the default directory, but by adding a tooltype to the program icon, it is possible to load a default worksheet. So for example, if your monthly household budget was set out in a worksheet called "budget" and located in DH0:Household, you would add the tooltype:

```
FILENAME=DH0:HOUSEHOLD/BUDGET
```

Maxiplan would from this point on load the worksheet every time it booted.

One other common problem encountered by users of Workbench 2.0x and above is that the palette tool supplied with Maxiplan crashes when run.

To change colours on a Workbench 2.0x machine, delete the palette tool and copy your own palette utility from the Workbench prefs drawer to the Maxiplan disk.

Pounding on the power

I have had an A500 for about three years now and over this time I've expanded it with some additional hardware, including two external drives, a RAM expansion, Philips monitor, sound sampler, and so on.

About two months ago I experienced some trouble with my standard PSU. It gave power on turning on, but not enough, I think, because the power light on my computer stayed off and wouldn't go on until I'd pounded or stamped on the

➤

Baffled by the PCMCIA cards

I'm very confused about the use of PCMCIA cards on the CDTV. After reading your reply to D Madeley in issue 57 I phoned Commodore Germany. I reached their technical hotline and they confirmed your answer – yes, the credit card slot on the CDTV is a standard PCMCIA slot.

This in mind I phoned Silica and ordered a 4Mb card. After receiving the card it did not fit into my CDTV's slot because it was too thick at the back, so I contacted Silica again and they told me that the CDTV can only use Personal Memory Cards and CDTV software must be specifically written to support them, so they refunded my money.

I phoned Commodore again and this time I reached someone who claimed to be responsible for the technical aspects of the CDTV. She told me that the credit card slot on the CDTV was developed earlier than the PCMCIA slot on the A600 and therefore couldn't use cards developed for the A600.

The only possibility to upgrade to more RAM was an internal expansion from a company in Berlin which costs £250.

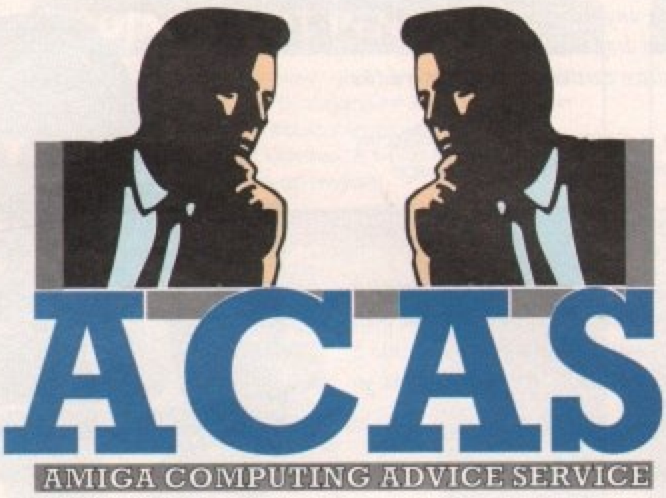
However, a few days ago I saw a 256k RAM card in a shop. It had the same connector as a PCMCIA card and the shopkeeper insisted that it would work with CDTV. Sadly, there was no way of testing it as he didn't have a CDTV. Please tell me if there is any way to get these PCMCIA cards to work on the CDTV. I want to upgrade to more memory and I don't want to pay £250.

Uwe Recknagel, Bochum, Germany

Having been wrongly informed that new CDTVs were being shipped with standard PCMCIA slots, we trudged off on a telephonic trek in search of the truth about CDTV. First stop Commodore, who seemed reticent about the whole thing. The technical department scratched their collective heads for a while then confirmed that the CDTV slot is an old pre-PCMCIA Fujitsu slot and has not been changed.

Next it was off to Fujitsu, and after going through two different offices and two of their biggest dealers, the answer was that we were talking about an old format which noone knew anything about. As far as the outside world is concerned, if it's not PCMCIA, then it just isn't kosher.

Silica eventually furnished the only positive help, though you might find it a little expensive. The Personal Memory Cards for CDTV come in two flavours, 64k priced at £75 and 256k for a whopping £229.



PSU. After some time the PSU was completely dead so I went out and bought a replacement, also standard. I know you'll say go out and get a heavier duty power supply, but I've never had problems with my standard unit in the past.

My next question is about my printer, a Commodore MPS 1500C. Is there a printer driver available for it, and if so where can I get it? I'm using an Epson driver now, but with some programs I must change the printer settings first or I get double spacing or no colours.

Ton van Neijhof, Den Haag, Holland

Probably what happened to your power supply was that it just died of old age. These things happen, and given that it was powering more peripherals than it was designed to, its life expectancy had probably been reduced.

Printer drivers for the MPS1500C must exist somewhere, but I've not been able to locate one in the office. Workbench certainly doesn't have one as standard, but PD libraries or a large bulletin board should be able to supply the driver for a small fee.

Task alerts

I have an A500 Plus with GVP hard drive and until recently I have been designing custom pointers, changing default fonts, mucking about with the palette and so on using the Workbench 2.04 prefs programs. However, every time I now load the palette, pointer, or WBPattern programs I get a recoverable alert.

If I boot from the original Workbench floppy I can load all the prefs programs from my hard drive. Do I have a problem with my startup-sequence, or have the recent changes that I have made to my DH0:Fonts drawer had a detrimental effect?

Oh, and in reply to John Gray of London in issue 58, if he places PP as the line just prior to the Endcli command at the end of the startup-sequence, preceded immediately by the line:

```
FAILAT 110
```

he will find that PP runs quite happily.

K W Thornton, Canvey Island

We've messed about with one of our machines all morning in an attempt to recreate your problem, doing everything from deleting prefs settings to deliberately corrupting them and getting rid of essential libraries, but no recoverable alerts.

Possibly the only quick remedy would be to copy the Prefs/Env-Archive drawer across to your hard drive in its entirety, replacing the existing drawer.

This will wipe out any changes you have made, so you might want to keep a copy of the drawer for future use in case this doesn't work.

Fattie returns

Further to a letter in the January issue, you say a Fatter Agnus chip is needed for an Amiga to operate in the USA due to the difference between PAL and NTSC.

Does the A500 Plus have a Fatter Agnus fitted and if not how complicated would one be to install? Would there be any advantage in an A500 Plus in fitting the Pro Agnus or Obese Agnus chip? Is the A1200 PAL to NTSC compatible without the need of extra chips?

I have been waiting patiently for months to see this question answered in magazine letters pages.

W Ford, Kirn Dunoon

Your wait appears to be over. The A500 Plus is fitted with Agnus chip number 8372B, which is otherwise called Super Agnus and is superior to the Fatter Agnus chip found in older machines.

There is therefore no need to install one or to bother with the Pro Agnus kit, as the latter type of peripheral simply involves fitting a Super Agnus and an extra wodge of chip RAM.

The advantage in having a Super Agnus is that the A500 Plus can address 2Mb of chip RAM as opposed to the 1Mb limit of the Fatter Agnus. Chip RAM is the area which the custom chips store their data. As chip memory is thus the only place in which sound and graphics can be stored, it is always a good idea to have more of it.

The A1200 has an altogether new graphics chip called Alice, which is 32-bit and is responsible for many of the enhanced graphics to be found on AGA machines.

Monitor mayhem

I recently bought an A1200, and borrowed a VGA monitor from a friend so that I could try out the screen modes I'd heard so much about. When I finally sorted out a connector, however (and this took long enough), I was disappointed to find that many of the screen modes don't work.

Why? Is it the monitor - an unbadged PC SVGA type - or the A1200? Can my third party monitor adapter be at fault?

Kevin Gruecock, Norwich

The VGA monitor you are using probably has a narrow band width and syncs to only a narrow range of signals. The VGA standard fits this, but many of the Amiga's screen modes - and it has many more than the PC - vary greatly from the 31-35kHz area in which most VGA signals can be found.

For complete compatibility, the expensive Commodore 1960 monitor is a good bet, or you could hang on for one of the third-party monitors which should be appearing soon. Gasteiner, for example, are releasing a range of A1200-specific monitors, and a new range of Commodore multi-syncs is on the way.

If you persist with the VGA monitor for the moment, try experimenting with the different monitor types found in the Extras3.0:Storage/Monitors drawer. VGA/Multiscan is a good start, but there are others which might yield better results with a bit of experimenting.

CLI (again)

Over the past few years since buying my WB1.3 A500, a few problems seem to crop up regularly, mainly when using the CLI.

First, do the examples in the PD C Manual II compile using North C v1.3? I have the original C Manual and was considering getting the new version, but Amiganuts state in their catalogue disk that there are difficulties compiling the examples without Lattice/SAS C.

Can you redirect output from a CLI/Shell window to an existing CLI/Shell window?

Is it possible to put two commands on the same line, say, by using:

```
Dir DF0: [Ctrl-m (new line] CD DF0:
```

This would be very helpful for certain menu systems, but has to be able to be written using a Basic text editor.

Is there any software which allows you to sample the sound output from the same computer by capturing the sound while still playing the original music?

A Eaton, Leominster

Yes, it should be possible to use many of the examples in the C Manual with North C v1.3, but expect to have to avoid some examples and rewrite others. Lattice C is a clean and very legal compiler, but there will always be compiler-specific commands and other difficulties in such cases.

In reply to your remaining questions, no, no, and why would you want to?

No room

I have an A600 standalone pack and I have a few problems with my Workbench and the Shell on it. When Workbench boots up and tells you how much memory is left, the figures in the manual are totally different to the numbers on mine, which are 870327 graphics memory and zero other memory.

Also, I can't make a new directory on the disk. I type the proper command in the Shell and the computer tells me that Workbench is full. Could you solve my problem?

Daniel Janas, Sheffield

Your memory problem isn't really a problem at all. The figures in the Workbench manual aren't meant to be taken as a strict guide but as an example of the sort of RAM limit you will have once your disk has booted.

This varies depending on what commands and programs have been run during the Workbench startup-sequence and will certainly differ from those in the example screen grab shown in your manual.

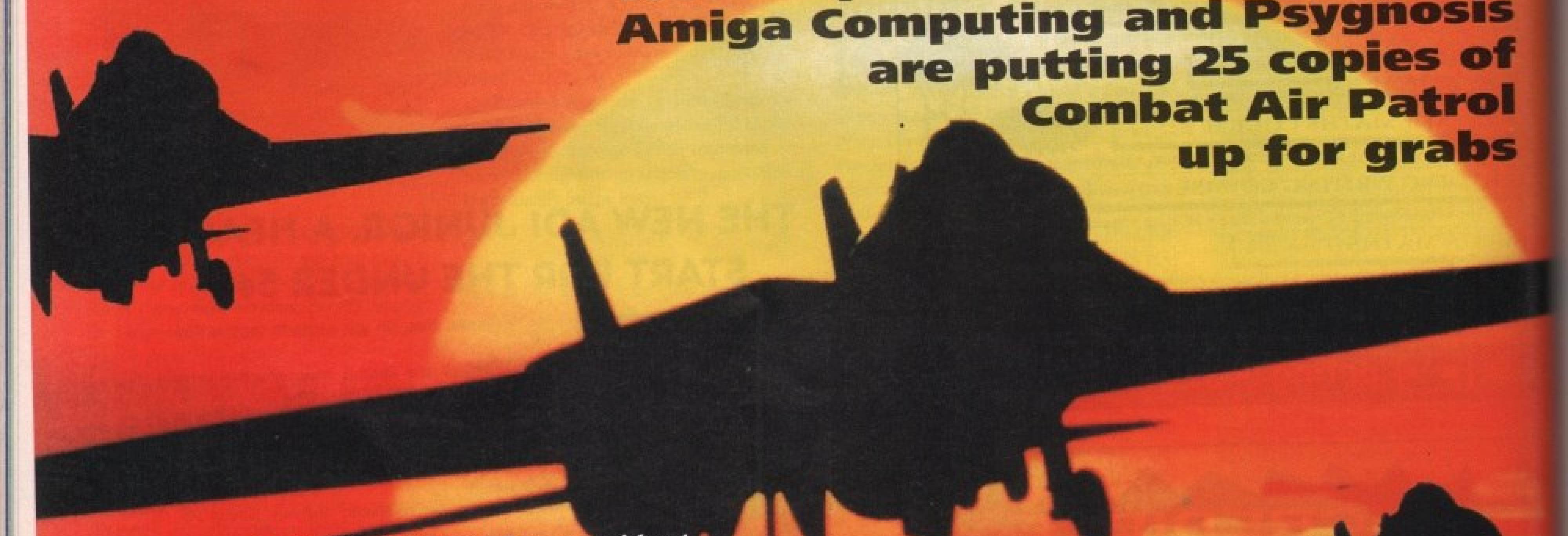
As for your problem creating a directory, you will have to delete a few files from the Workbench disk before going any further. Commodore have developed the Amiga's operating system to a point where it only just fits on floppies, so use the Delete command to get rid of something you don't use much or don't need.

You got problems too? Then drop a line to Amiga Computing Advice Service, Europa House, Adlington Park, Macclesfield SK10 4NP and we'll move heaven and earth to help in these columns. But sorry, we cannot reply personally, so save those SAEs.

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- *a. Commander-in-Chief* ☐
- *b. Front-line fighter pilot* ☐
- *c. Navigator* ☐

2. Which of the following aircraft do you NOT use in Combat Air Patrol?

- *a. F-14 Intercept* ☐
- *b. Spitfire* ☐
- *c. F-18 Strike* ☐

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The gamer posse check out all that's wild and wonderful from the European Computer Trade Show

We'll breed again...

Alien Breed 2 is on its way, at last. The original was hailed by all as a classic and hundreds of gamers have been drooling over the prospect of a sequel. Well, it's finally being put into full scale production and will be ready around October/November time.

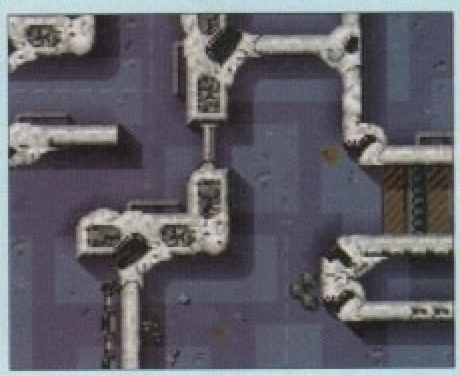
The sequel promises to be bigger and tougher plus it'll have more atmosphere, more action and much more gameplay than the original. Features include many different types of Aliens, lots of different traps, new and more devastating weapons and add-ons. There will also be other features such as hostage rescue and much more, but Team 17 are remaining firmly tight-lipped and at this moment in time don't want to reveal any more about the game, which is fair enough otherwise you'll get someone ripping off your ideas.



One thing that is quite pleasing is the fact that Alien Breed 2 will be primarily developed for the A1200 and cut-down versions for the A500/600 will be released at a later stage.

This means that the game will be technically amazing, much more so than anything ever previously released by Team 17. This will ultimately mean more colours, more enemies, more graphics, more sound effects and much more action than ever before.

It will be about three to four times bigger than Alien Breed. The screenshots you can see are some mock graphics – they're 128-colour backgrounds and are just a small taste of what you can expect.



More information and screenshots from Alien Breed 2 will be on their way in the coming months, so if you want to know more about the world's greatest sequel then keep tuned in to Gamer Globe.

Rampant Renegade releases...

The much awaited sequel to the mother of all shoot-'em-ups is approaching completion. Uridium 2 is set to become the definitive game of its type, or so say Renegade.

Using the full capabilities of the Amiga, Uridium 2 features the action-filled adventures of a Manta craft, hell-bent on the destruction of the encroaching Dreadnoughts.

Features include 48 frames of animation for the craft, high speed scrolling (50 fps) in 32-colour mode, added vertical scrolling for an enlarged playing area and layers parallax.

Other features being added include simultaneous two-player mode, different weapons systems and an entirely new end-of-ship section. Uridium 2 is nearing completion and is to be released in September.

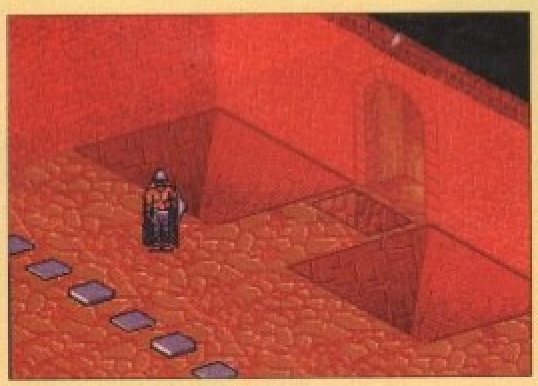
Also on the way from Renegade is a cutesy platform game under the title of Ruff & Tumble.

The game is based on the activities of a 12-year-old called Ruff Rogers who gets transported into a fantasy world while playing around in a rabbit warren.

The world is controlled by the evil Dr Destiny and his minions and Ruff being a hero decides to save the planet. Kids, eh?

The game has been in development for five months and is nearing completion. It will feature fast gameplay, complex puzzles and a huge variety of opponents and levels.

Ruff & Tumble is looking good and should make an appearance on your Amiga in October.





Cyber Scoop

It would be hard for Cyberdreams to equal Dark seed, their state-of-the-art adventure. One of the main attractions was the artwork from artist and sci-fi guru H R Giger.

Cyberdreams' next release is CyberRace, a revolutionary 3D combat and racing simulation. The game is designed by world renowned industrial designer and futurist Syd Mead. Syd has contributed to feature films including 2010, Aliens, Star Trek and Tron, but is probably best known for his work in designing Blade Runner.

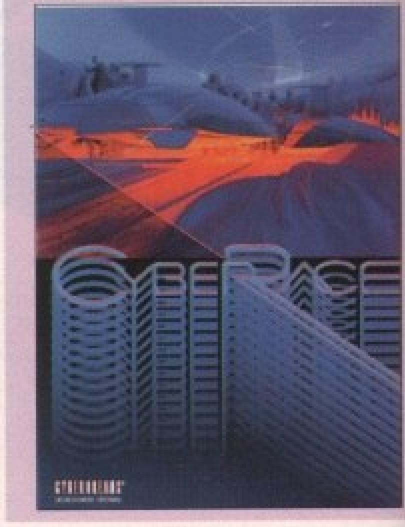
CyberRace utilises VOXELS (the latest in landscape rendering technology, apparently), ray-traced vehicles which you customise, stunning sound effects and an outstanding musical score by an Emmy Award-winning composer.

Cyberdreams boast that CyberRace will set new standards in gaming quality and action. It will be available in November and is well worth looking out for.

Not a company to sit about twiddling their thumbs, they've also got a release planned for the first quarter for 1994. Probably the most unusually titled game ever, I Have No Mouth And I Must Scream is currently in development.

The game is based on a story of the same name written by Harlan Ellison. Harlan has many television scripts to his name which include Star Trek and The Twilight Zone.

I Have No Mouth... takes you into the belly of a super computer where you experience a bizarre and ever-changing world. The aim is to defeat the all-powerful computer who has destroyed all of humanity. Gamer thinks that this game could well be a massive hit. Keep your eyes peeled.



There she blows again...

Team 17, a company not known for resting on their laurels, are putting the final touches to a special edition of Body Blows which after streamlining many of the programming routines has been made even faster than before!

As well as enhanced speed, other features include the ability to play any of the ten main characters in one-player mode. Shadows and other things which had to be dropped from the final version have now also been incorporated.

Owners wishing to upgrade their original Body Blows can now do so by sending Disk 1 (Note: Disk 1 only!) back to Team 17 and by enclosing a meagre amount of £2.50. All versions of Body Blows in the shops will be the latest edition by late April.

Also on the way this summer is the A1200 version which will support 256-colour backdrops, smoother, faster action, better sound/music and an extra character!

By far the biggest news though, is the release of Body Blows 2 which will rear its lovely head in November. This time the scenario will be somewhat different with the prize of "Ultimate Galactic Warrior" up for grabs.

The game design is still in its very early stages, but the final game will see seven planets of the solar system put forward their two best fighters. Expect more unusual characters such as droids, aliens, humanoids and of course humans.



Technically the game will be amazing with large animated fighters and fast moving action. It will be written for both the A1200 and A500/600, but the A1200 version will be faster with enhanced graphics and sound.

For beat-'em-up fans it's going to be a wonderful year. We'll have more news and screenshots for you as we get them.

Empire strikes back!



Empire have returned with some brand new games plus a couple of sequels to some old favourites. The first is the sequel to Campaign, the Gamer Gold-rated World War sim. Wittily named Campaign 2, the game promises to be bigger, better and quite simply the military simulation of the year.

The whole system has been updated to include all the post-war vehicles – over 100 new 3D shapes from Abrams to T72s. All modern weapon systems such as guided missiles, rockets, homing missiles, laser rangefinders, gun stabilisers and night sights have been added.

The game also features animated infantry which can be deployed from personnel carriers into the battlefield. Also, you can now drive all of the vehicles in an improved 3D environment – including helicopters. If you're a military simulation fan then it looks as though Campaign 2 will be the definitive game for you.

The other sequel is Guy Spy 2. The original didn't fare too well in the review stakes, but at least it did better than Dragon's Lair and Space Ace series. The game is subtitled The Terror of the Deep and Empire say that it's destined to become one of the best animated adventure games ever.

Guy Spy 2 combines point and click adventure gaming with smooth animated fight scenes and stunning 3D computer-generated sequences. Technically, Guy Spy 2 boasts more than 100 scenes with over 1,200 frames of animation and almost 20Mb of graphics data. Release date: October.





INNARDS

Come into my house, smirk and admire...

REVIEWS-REVIEWS-REVIEWS





REGULARS-REGULARS-REGULARS

Gamer GLOBE

Virgin' on the ridiculous...

Beneath a Steel Sky by Virgin Games is the world's first computer-based animated comic book adventure.

Beneath... features the combined talents of a top comic book author and artist and a leading computer development team responsible for one of last year's biggest adventures.

The author and artist is Dave Gibbons who might not ring any bells with most of our readers, but he was responsible for Watchmen, one of the most fascinating, interesting and highly acclaimed graphic novels of recent times.

The development team is the company Revolution who created the excellent Lure of the Temptress. Keep reading Gamer and hopefully a preview should appear in these hallowed pages very soon. The game will be available in November, so start saving your money.

Virgin also have four games waiting to be released before Christmas. Dino Dini's Goal – which you should already have read about – will be out in June.

The sequel to the highly praised Dune entitled Dune 2 – The Battle for Arrakis will arrive in September and is adapted from Frank Herbert's award-winning series of science fiction novels.

Apocalypse takes you to the skies in a super-sleek helicopter and basically it's an all-out war. The bullets, missiles, rockets and flak fly thick and fast through five full-on levels of blasting and action.

The game features stunning sampled sound effects such as heavy machine gun fire and explosions. Other features include various parallax effects including background and foreground objects to further enhance the unique depth of realism. Apocalypse will land in the Amiga world in June.

The much awaited Cannon Fodder by Sensible Software is almost ready – the finishing touches are being carefully applied and it's due for release in November.

Choose a platoon of crack troops and send them into battle. Included in the game are 100 phases of action with 30 different missions and five terrain types.

The game features Sensible Soccer-esque graphics (ie the sprites are really small) plus there are loads of spot sound effects and spoken words galore.

It's looking great and could be in with a chance of making number one game this Christmas. Virgin look as though they're going to have great year.

Into the core of Amiga games...

One of the busiest games companies this year will be Core Design who have six releases planned. The first will appear in May and is a 3D isometric adventure entitled Darkmere.

The hero of the game is called Ebryn, who as heir to the throne must uncover the mysterious curse of Darkmere and avenge the people of his village.

It looks really good, particularly on the graphics and sound fronts. Expect a preview or even a review in Gamer very soon.

Blastar is Core's second release and is a multi-directional shoot-'em-up which promises to rewrite the rules – it could even be a Project X beater.

You take controls and steer Blastar through five main stages of exhilaration and firepower. Blastar boasts fantastic graphics and unbeatable gameplay and will be available in June.

Core Design are also bringing out a platform game in June entitled Bubb 'n' Stix. It's a horizontally scrolling puzzle adventure which revolves around Bubba – an ordinary delivery man – and his desperate attempts to get back to Earth with only his friendly alien stick to help him.

The stick is one of the main parts of the game and can be used in a number of ways. It can kill enemies, be a lever, a snooker cue, a tightrope balance, a javelin or even a baseball bat. It is used to solve many puzzles in the game.

Levels include an alien forest, a derelict spaceship, a swamp and even inside the planet's alien zoo. A demo of Bubba 'n' Stix was playing at the show and it looked very impressive indeed. Expect it this summer.

Also on the way is Wonder Dog. Originally available for JVC's Wonder Mega CD machine, Wonder Dog received overwhelming applause in the specialist console press both in the States and in the UK.

Wonder Dog is an eight-level horizontally scrolling platform action game that includes multi-layer parallax and stunning graphics. The game is packed full of bonuses, secret rooms and loads of cute enemies. Wonder Dog arrives in the Summer.

The big news from Core Design is that they are producing a couple of sequels. The first is the follow up to the utterly fantastic Curse of Enchantia. The original game was highly acclaimed, received unanimous 90 per cent and over scores from the computer press.

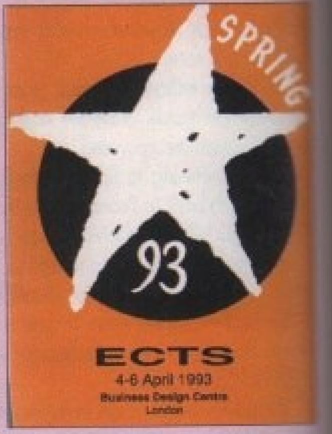
Details are very scarce at the moment, but expect unbelievable graphics and fantastic playability, just like the original. Curse of Enchantia 2 will be available in August and could well be a contender for Game of the Year.

The second sequel is Heimdall 2. Sub-titled Bane of Asgard, it will once more feature Heimdall and his merry band of Nordic warriors. Loki the evil God from the first game is back and this time he's got his evil army to avenge hemselves against Heimdall.

The odds are not stacked in Heimdall's favour, but will our Nordic chum prevail? We'll just have to see when the game comes out around December time.

I'd just like to thank...

The ECTS Award winners were announced on Sunday April 4 at the Limelight Club in London. Amiga winners included Monkey Island 2 which scooped Best Soundtrack, Best RPG/Adventure Game and German Game of the Year. US Gold's Indiana Jones and the Fate of Atlantis won the coveted Best Computer Game award.



Best Simulation was no contest and went to Microprose's amazing racing sim Formula One Grand Prix. Electronic Arts grabbed Software Publisher of the Year – and that's basically all the Amiga won. Otherwise the awards were dominated by Street Fighter 2 on the SNES and by Sonic 2 on the Mega Drive.

Despite having three out of the four nominations for Best Hardware Award, the Amiga still lost to the Super Nintendo. Ah well, you can't win them all.

The whole ceremony was hosted by Violet Berlin, presenter of ITV's Bad Influence who Gamer learns did actually drop one of the awards, ho ho.

Also present were various members of Madness. Let's hope next year the Amiga gets one step beyond those consoles in the award stakes.

It's finger lickin' good...

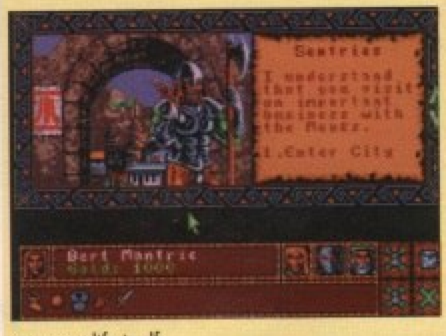
Mindscape are about to dip their toes into the pool of platform tomfoolery with Alfred Chicken. The game features Alfred who has to rescue his chum Billy Egg and girlfriend Floella who have been eggnapped by the evil Meka-Chickens.



Alfred Chicken is an 11-level platform fantasy created by Twilight and jammed-packed full of hidden rooms, power ups and loads of laughs.

Gamer clucked out Alfred Chicken at the ECTS and it's looking good. It's got superb graphics and much challenging and puzzling gameplay. Alfred will be available in September, price is yet to be announced.

Also from the Mindscape stable comes Son of the Empire, the sequel to the highly acclaimed adventure/RPG game Legend. Son of the Empire takes you to Far Eastern lands where your unique band of adventurer are once more called upon to rid the world of evil.



It uses the same features which made the original a world-wide success. Gamer has seen an early demo and it's looking very good indeed. You'll be able to experience it when it arrives in June.

Following hot on the heels of SimCity and SimEarth is SimLife from Maxis. This time the creators of the aforementioned Sim games take you where you've never been and gives you the power to create life itself.

Pretty mind-blowing stuff, but basically SimLife lets you design your own experiments using simulated environments, ecosystems, genetics, evolution, life and behaviour. You can even control time and physics.

You get a chance to create life, but beware because it's up to you to keep your species off the endangered list. Features include six different pre-set scenarios, four world sizes, fires, plagues and other disasters and even an icon editor to customise the look of your creations.

Mindscape are now developing an A1200-specific Amiga version for release in May. The PC and Macintosh versions were very well received by computer magazines, so SimLife could well be the best Sim game yet.







HISTORYLINE 1914-1918

Pack up your troubles in your old kit bag and enter the horror of WW1 with Paul Roundell

"Basing a game of strategy on the terrible First World War is a daring enterprise," claims the instruction manual proudly. Quite a strange statement I thought, not personally being able to depict any particular evidence of derring-do in simply cashing in on one of the bloodiest conflicts the world has ever seen.

Then I realised where developers Blue Byte hail from, and was able to appreciate that a WW1 strategy game by a German company is indeed a risky venture.

The USA is well known for its stout refusal to accept that the Vietnam War was anything but a complete shambles, earning the country nothing more than tens of thousands of pensionable teenagers and world-wide humiliation, and my initial reaction to Historyline was that it was a similar refute from the natives of the Fatherland, intent on justifying their failure in combat as a successful contribution to the great patriotic cause.

But apparently not – it's made perfectly clear right from the start that the game is precisely that, a game, and that no attempt has been made to gloss over the realities of what actually took place.

So what did take place then? Basically, two opposing parties spent the best part of four years killing each other in any manner they saw fit. Great; sounds good – plenty of scope here to integrate a few grisly scenes of carnage, one would have thought. But again, no.

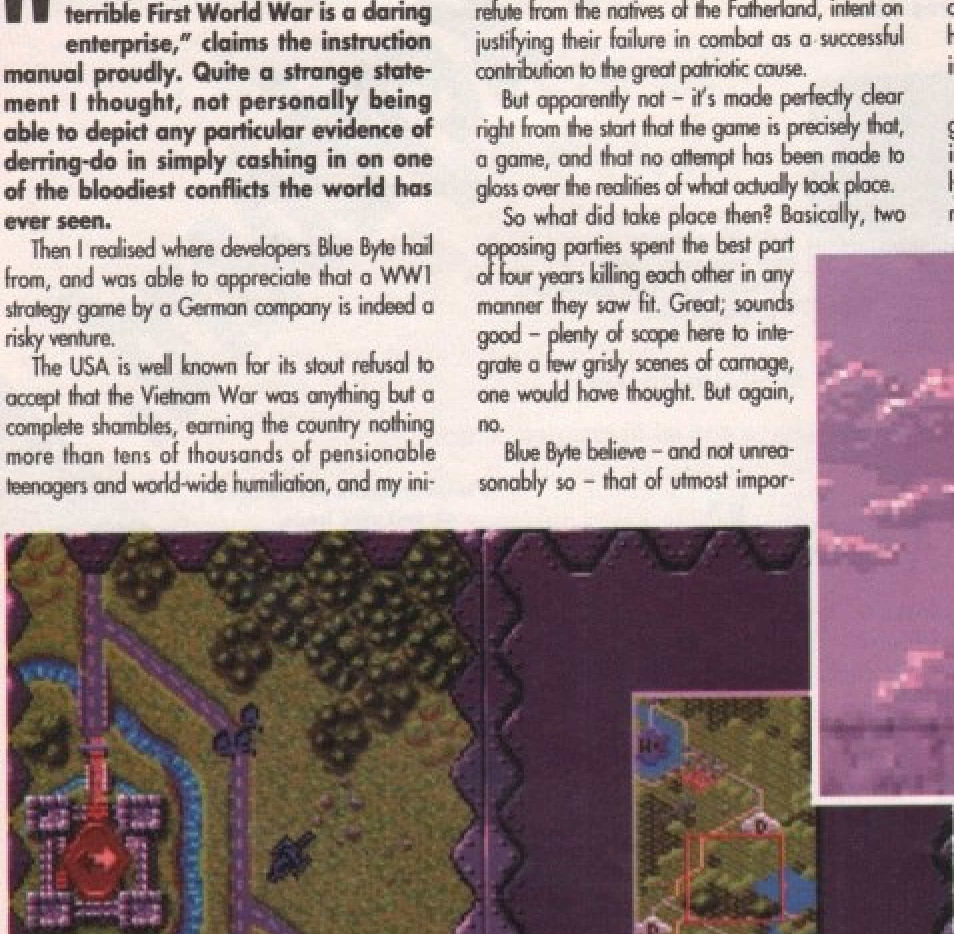
Blue Byte believe – and not unreasonably so – that of utmost importance in an affair such as this is tactical planning and, above all, enjoyment. It is to this end that they have devised Historyline in such a way as to be instantly accessible, rewarding and educational.

Dwelling not so much on the war, but on the gaming aspect as it does, none of the campaigns in Historyline are exact recreations of what actually took place, although the basic aim obviously remains the same. After a gorgeously presented but lengthy intro which seems to narrate virtually every event leading up to the war, and having decided as to whether you wish to pit your wits against a friend or the ever-willing computer (and which side you wish to represent), the game screen finally arrives, and it is here where a pleasant surprise occurs.

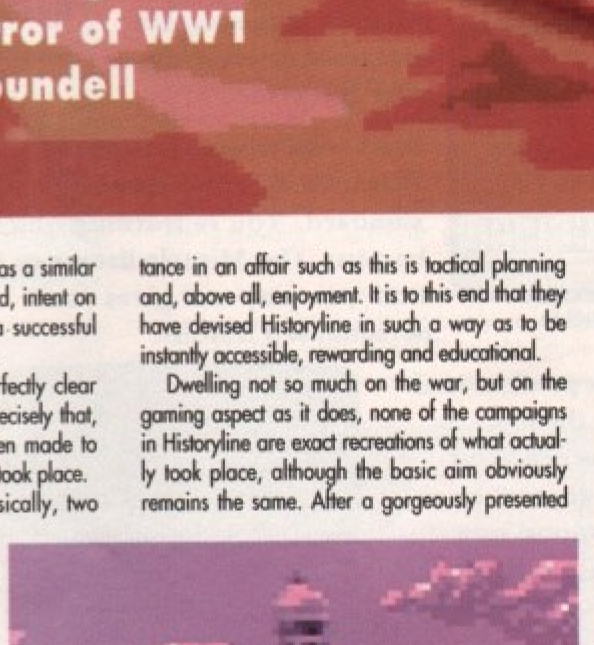
Unlike most games of this ilk, where the only control option consists of a combination of mouse clicks and keyboard controls, HL can be operated solely by a single joystick, proving Blue Byte's claim regarding its ease of use.

Two multi-scrolling maps make up the game screen – one yours and one your opponent's – which in turn combine to form a larger, overall map of the battle area.

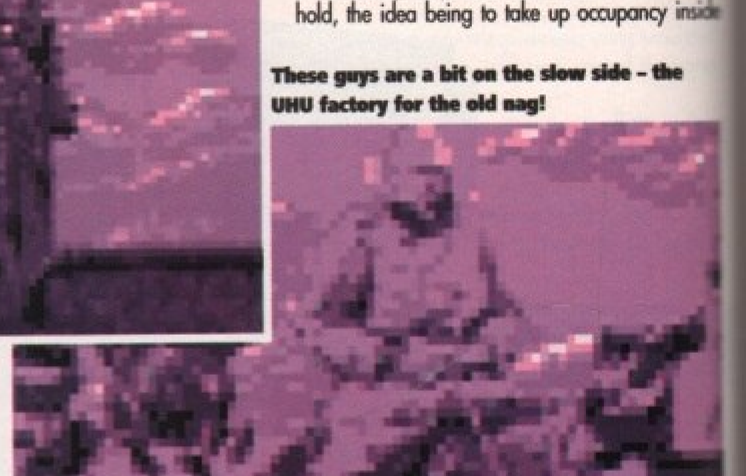
On every map each side has its own stronghold, the idea being to take up occupancy inside



The handy miniature map gives an overall view of just how poxy your troops are

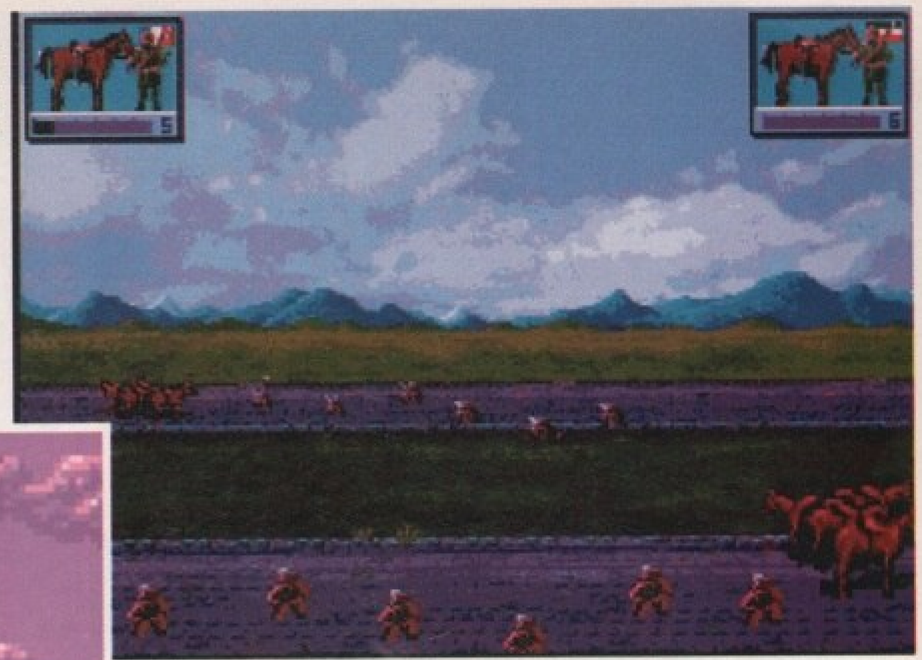


These guys are a bit on the slow side – the UHU factory for the old nag!









These animations take time to load and at first are very much alike

the enemy walls to emerge as victor. Of course you can if you wish don your Norman Schwartzkopf hat and run amok destroying everything in sight it provides the same end result if executed properly, although losses of artillery and troops tend to be heavier.

On the subject of artillery, your army is quite limited at first, since the game closely follows the technological advancements of the war: let me explain...

There are 24 battlegrounds in all, and game lore has it that a period of two months elapses between each of the 24 individual battles (totalling four years – the length of the war).

Towards the end of the conflict you will be controlling such mechanical pioneers as the legendary Fokker biplanes, Spad fighters and British Mark IV tanks, but initially your weapons will be of a more basic nature, such as mobile cannon, cavalry, and disease-ridden ground troops.

Your controlling cursor is in the form of a hexagon, which when your army is in Movement Mode dictates the positioning of your troops, and it really is very simple to operate.

The range of movement will obviously depend on what unit is involved, and against what kind of artillery you are fighting. The whole scene becomes darkened, leaving only a few light hexagons into which you can move, the process being repeated for every controllable unit.

Since the game spans the entire length of the war, the weather varies with the changing seasons, and your troops will find themselves coping with snow, ice and other conditions, all of which affect their effectiveness. Although the individual battle maps are quite small, range of movement is extremely limited early on, and it takes many minutes before the game begins to take shape. When the opposing sides finally meet an animated sequence accompanies each head-on battle, all of which are well drawn, and are accompanied by realistic sound effects.

At first these seem like a nice addition, but as the game progresses I found them to be increasingly more tiresome, particularly for those with single drive machines, which is the vast majority.

The problem is that when in extended battle mode – that is fighting out the whole war – a huge amount of disk swapping is required, and even on an A1200, which is what I used for the most part of the review, a single animated sequence can take three or four minutes to complete.

Not only that, but as the game progresses, a few individual battles may be taking place at once, meaning several minutes of nothing but disk swapping.

The animations can be skipped, once loaded, but there is no option to toggle them off, and the resulting tedium detracts from the game in a big way.

On some of the battlefields there are factories, in which you can rebuild or repair vehicles and weaponry. Depots can also be built, which on completion become an extra stronghold that doesn't need to be captured.

The depth in, and thought behind Historyline is undeniable, and it is presented in such a way as to bear out the programmers' claim that it is one of the most accessible games of its type.

It can virtually serve as a history lesson in its own right thanks to the massive intro and occasional in-game snippets. Throughout its course the game concentrates heavily on strategy and tactics and steers purposely away from the bloodshed of the conflict.

A brave step – commendable too, since there are any number of games on the shelves which can easily quench our thirst for gore.

Much of this gore is unnecessary though, whereas any bloody scenes in Historyline would simply serve as a stark reminder of reality, and leave the game minus an element with their exclusion.

This is not to say that what we have here is a half-hearted product, far from it. The level of information and depth of gameplay, topped off by excellent graphics and atmospheric tunes make for a real value-for-money package.

Due to its slow progression and tedious loading processes though, what could so easily have been an outstanding product instead finds itself standing shoulder to shoulder with the rest.

PAUL ROUNDELL

VISION
●●●●●●●○○○

AUDIO
●●●●●●○○○○

DIFFICULTY
●●●●●●●○○○

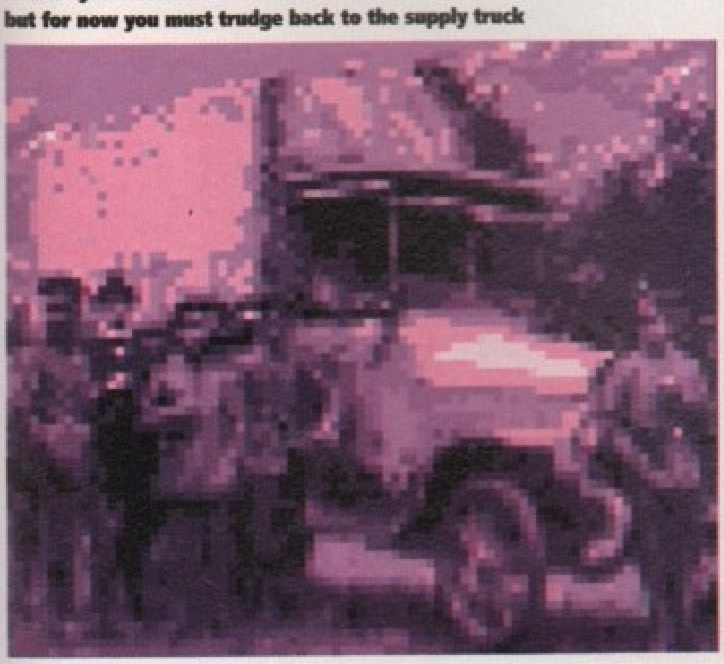
LASTABILITY
●●●●●●●○○○

80%

The thought and effort that have gone into Historyline are evident in the attention to detail throughout the game. An enjoyable product, but faster playability would have made it shine.

Publisher ➤ Blue Byte
Developer ➤ In House
Disks ➤ 7
Price ➤ £34.99
HD Install ➤ Yes (almost a necessity)
Size ➤ 1 meg

In later years we learned how to arm vehicles but for now you must trudge back to the supply truck





Nice firepower – very slow movement



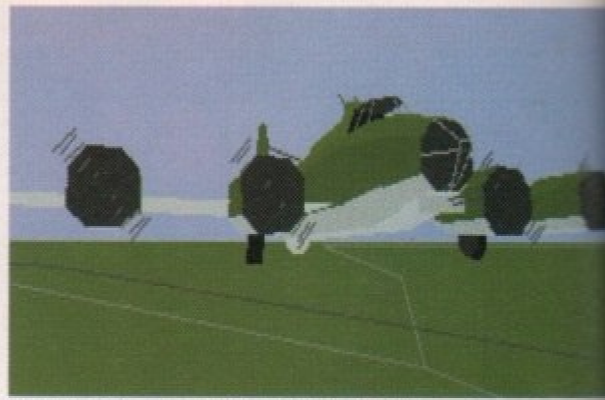
No it's not the telescope on Clacton prom. It's a large gun and very scary too



Your crew, very nice but not much use



One of the internal view screens, this is where you can view your character and work in a different section of the aircraft



Your plane, as easy to fly as a breeze block

B17

Ben Styles gets all tearful over the changes in flight sims and the state of things to come. Somewhere in there he mentions B17...

It's been strange to watch the changes in certain types of games over the last year. Flight sims especially have undergone a drastic shift in the way that the programmers construct the games.

In the middle of last year I made several jokes about the laborious process of getting into a flight sims. It was hopeless if you just wanted to have quick fly about and shoot down a couple of planes.

That aspect or facility no longer exists in this genre. They have become progressively more strategic as the months have gone on. It is not uncommon for you to be able to control ground troops or artillery, and the attributes of the staff with whom you fly the craft have become more and more complex as time has gone on. After a hard day at work you don't want have to listen to your co-pilot's life story!

There are also different ways of getting around the problems encountered when playing such games. Instead of there being a training mode for inexperienced pilots, it is not uncommon for the game to include a simulator – a simulator within a simulator, as it were.

But the evolution of the flight simulation isn't necessarily a bad thing, it's just the fact that we have lost the old style – the flying has become almost peripheral to the game. But enough of my moaning, I shall tell you about B17.

To start with I was most disappointed with the compatibility level. I much prefer to play flight sims on a fast, accelerated machine so I installed it on an A4000 – the software did not like at all. So I installed it on an A1500 with an 030 accelerator and it flipped out again.

Next I tried an A3000 with an 030 accelerator and once again I had no joy. I finally gave up and ran the game off disks on an A1200, encountering no trouble at all. Still, it was quite slow even on the A1200 which does not bode well for A500/600 users.

You have control of an eight-man team who fly the aircraft. Each different man has a particular job whether it be radio man or bomber. You don't have to control them all at any one time – you just have to assume different roles as and when needs dictate. They will quite happily get on with their jobs at other times.

You can shoot down enemy planes from any of the gun turrets and there is a setting to determine the speed at which the turrets move – obviously planes built in the 40s weren't going to have state-of-the-art motorised equipment.

It's a very personal game. Not only do you have to choose your bomber, you have to choose the artwork which goes on the nose and you have to name it.

After you have the plane sorted you can have a photo taken with you and you crew. Graphically it's very effective but it's not much use!

As with most other flight sims, you have to choose the mission you wish to fly. One very clever extra feature is a reconnaisance film. It even has the crackly black and white opening sequence which I was most impressed with.

I found that B17 got very irritating at times for a number of reasons. The first is the laborious way you have to get around the craft and change you role – it's very complicated and fiddly.

Reason two is the slowness of the game. Sometimes it almost comes to a standstill.

Flight sim purists will have field day with this but it is definitely a question of taste. Personally I wouldn't touch it with barge pole, but decide for yourself.

BEN STYLES

VISION 8/10
AUDIO 7/10
DIFFICULTY 10/10
LASTABILITY 9/10

69%

Good graphics, sound and a fearful level of difficulty don't translate into a coherent, playable game. If you enjoy the realism on offer, though, you won't get bored quickly.

Publisher ➤	MicroProse
Developer ➤	In house
Disks ➤	3
Price ➤	£34.99
HD Install ➤	Yes
Size ➤	1 meg

Flight sequences are slow but rewarding



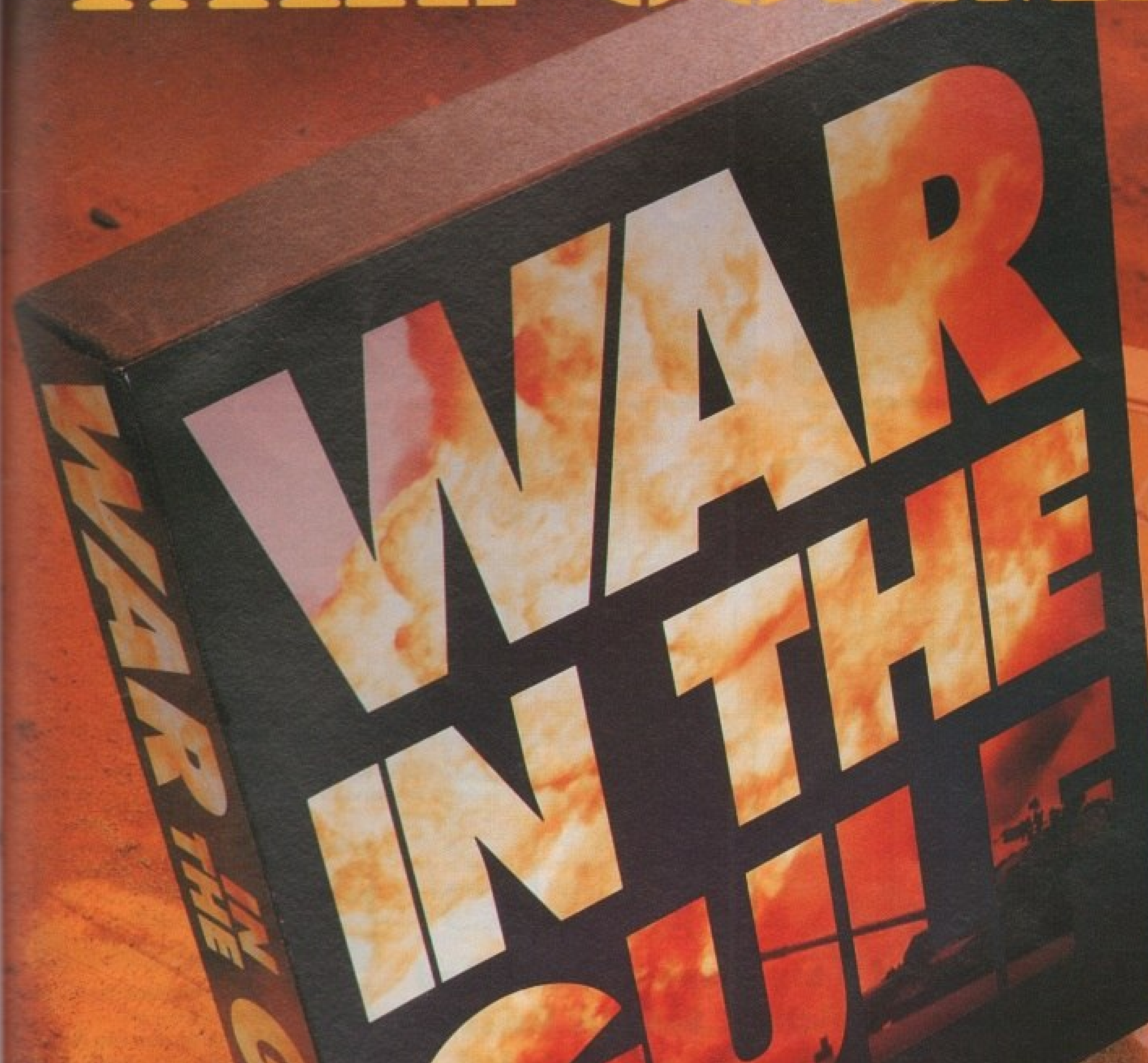
A prime example of being able to choose your own art work and name for your craft



Now which one's the cigarette lighter?

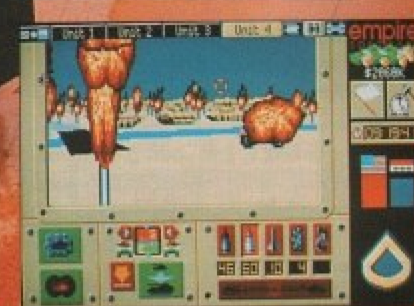


TAKE COMMAND

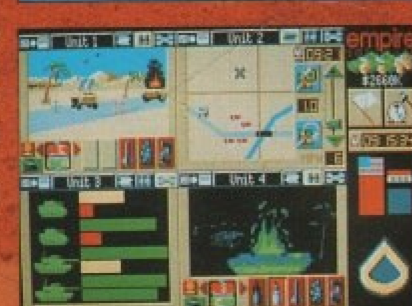












THE LONG AWAITED SEQUEL TO THE AWARD WINNING TEAM YANKEE & PACIFIC ISLANDS

1995...The Iraqi Republican Guard have overrun the oilfields of Northern Kuwait. War in the Gulf follows the fortunes of a crack unit of M1 tanks as the action unfolds.

- 25 battle areas individually coded to very fine detail.
- View the battlefield from four different perspectives using a 3D mix of bitmap and vector graphics.
- Take command of 4 tank units, simultaneously controlling 16 different vehicles through the unique split screen control system.
- Call upon the latest military technology including; laser-range finders, Infra-red imaging, TOW, HEAT and SABOT missiles.
- Liberate Kuwaiti villages, capture oilwells and disrupt desert supply lines.
- Lay minefields and order up artillery barrages.

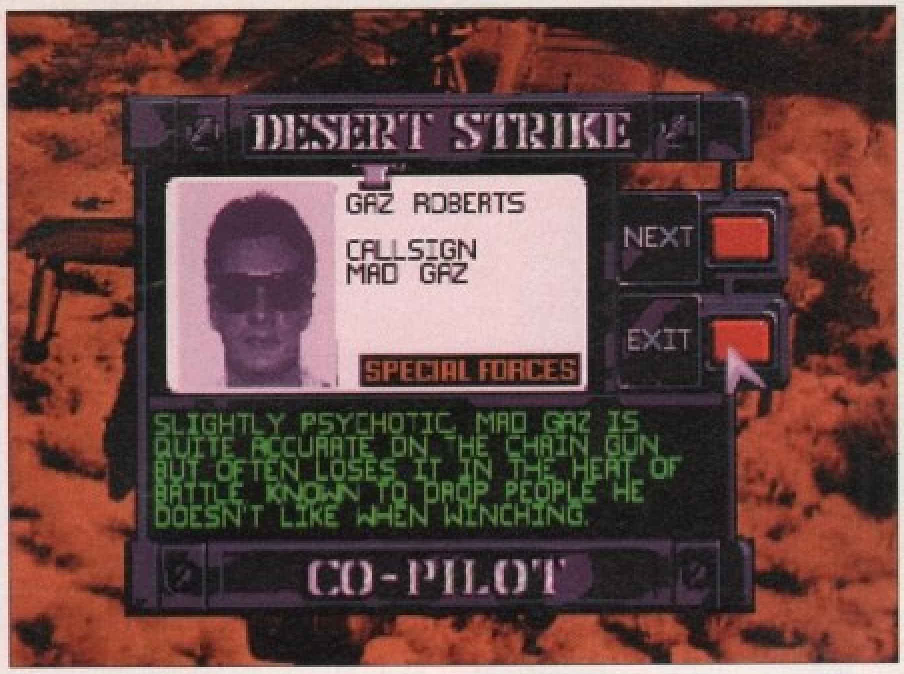
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empire
SOFTWARE



There are some advantages of being a programmer. Like getting your mush in the game



"Now this is me and Mabel at Brighton Beach" Norman parades his holidays snaps to the troops

DESERT STRIKE

Take control of a big chopper in this Gulf War arcade simulation. Saddam Hussein and Stormin' Norman are not included...

Electronic Arts are back and this time they're bringing out the big guns. Gary Roberts, the guy responsible for the conversion of John Madden's Football to the Amiga has been beavering away in a dark dungeon to bring you Desert Strike.

A massive hit on the Mega Drive, I can already guarantee Desert Strike is going to take the Amiga games world by storm.

How can I be so sure of this fact? Well, it is just simply brilliant. I could quite literally enthuse about it all day. For starters I'm probably biased because it's my favourite game on the Megadrive, but now it's out on the Amiga I can safely stick little brother's Mega Drive in the cupboard.

Desert Strike is excellent, the best thing since sliced bread, the best, the tops, the best game in the universe. Sllllaaappp. Phew, I flipped out there for a second.

HERE WE GO...

Right I'll start the review properly now, it's just one of things I had to get out of my system. I'll ask a question. "What particular subject makes a good computer game?"

It's easy. The answer is war. Death and destruction is what the kids want. Everyone loves a good war game. Kill some foreigners and then go and have your tea and go to bed. It's just a bit of fun isn't it?

It's recently been reported that violent computer games influence how kids behave and react. Personally I think it's all a load of rubbish. The thing that influences kids to do what they do is real life.

They see wars between nations, they see people stealing cars and property, people taking and selling drugs, violence on the streets and racism and sexism among a whole list of other things I could mention. Kids want to act like adults. This is the example being set to them by others. How do they see all this that is corrupting the world? It's easy – they only have to watch the news on television or read a newspaper. Computer games are just a scapegoat, so that people don't have to accept the truth about the world we live in.

Oh I was getting a bit serious there wasn't I? What was I talking about? Err, I remember it was Desert Strike. Desert Strike is about a return to the Gulf. Without warning a madman has made himself leader and threatened to start Armageddon.

The madman calls himself General Kilbaba and looks nothing like Saddam, honest! Very little is known about him, although he has been known to watch Les Dennis on Family Fortunes and laugh. As I said before, completely and utterly hat–stand. One thing our brave government knows is that loonies and missiles just do not mix. You play the part of an American Apache pilot and because the President doesn't want to cause a fuss, he sends just you (and co–pilot) into the warzone to complete a set number of missions.

The missions vary from blowing up radar sites to rescuing POWs from their camps and even though not strictly a mission, you can play such fun games as exploding camels. Each level, of which there are four, consists of between six to eight of these missions.

PASSWORD HELPS

Desert Strike is a very hard game, not too hard that you can't get anyhere, but hard enough to keep you entertained. For example, after a few days I managed to complete the first level and by this time I'm getting quite proficient at playing it, but it still took me 40 minutes to do it. Thankfully there is a password system otherwise it'd take you ages to complete.

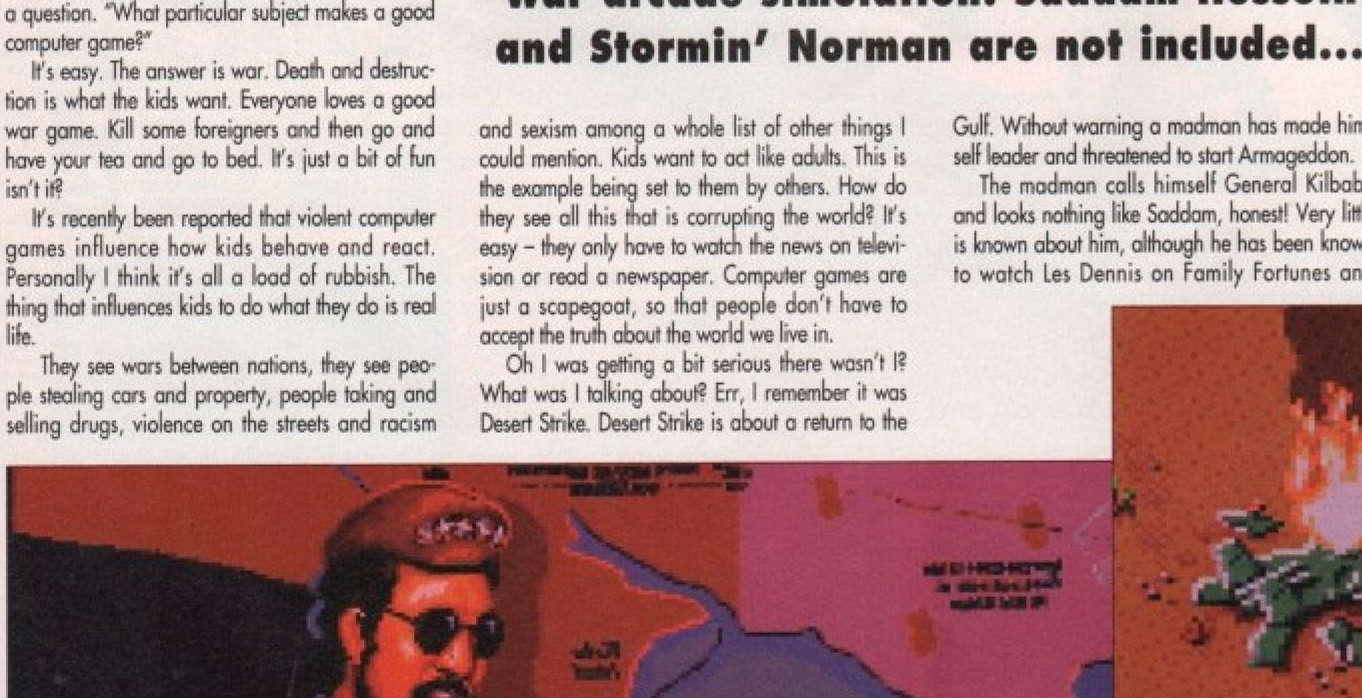
As you can see from the screenshots, the view is very different to what you'd normally expect from a chopper game. Instead of being inside the Apache you actually control it from the outside.

It's very similar to those 3D isometric games, but far better. It's also very easy to control. It works best in joystick mode because you get a better feeling of actually being there.

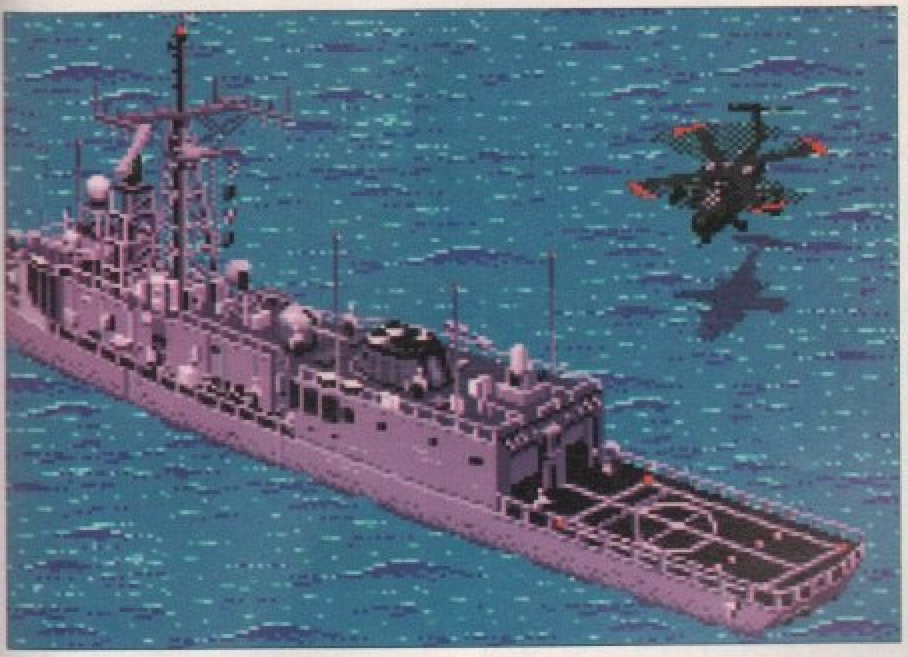
The Apache houses three different types of weapons. The cannon is used to blow up enemy



There was a pilot there a minute ago, but I've rescued him, so you can't see him any more. I could be lying, but would I lie to you?



Hmm, he looks like a certain Iraqi dictator. What was his name again?



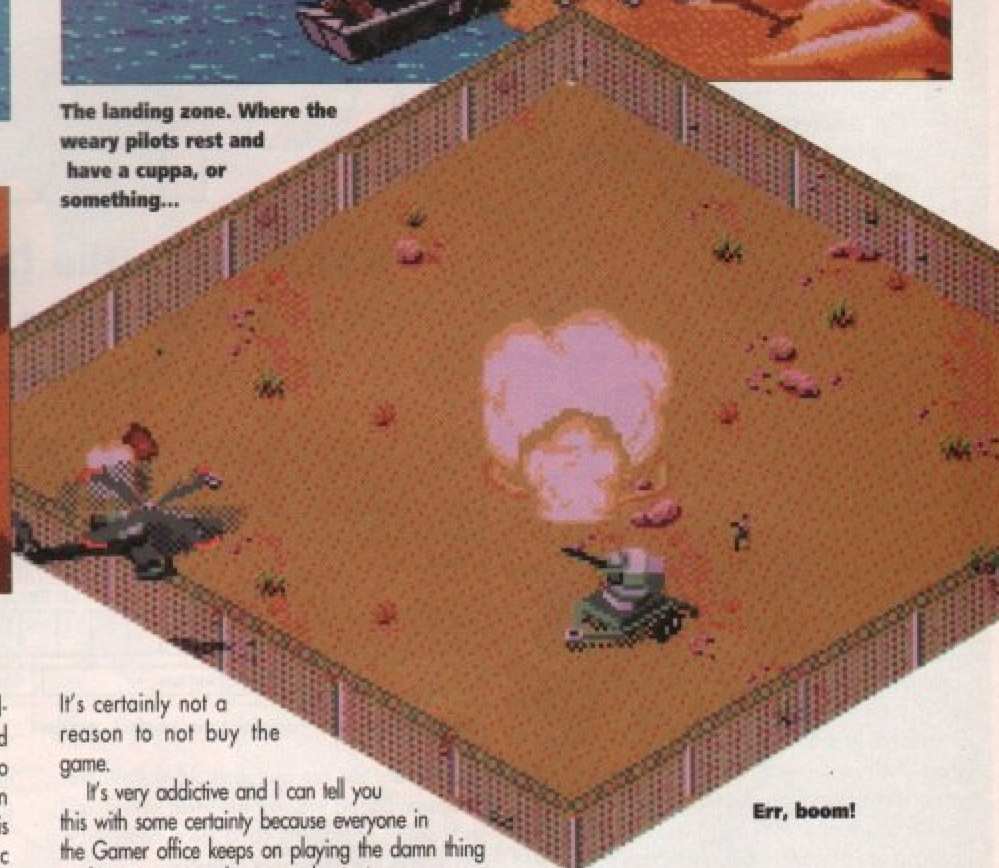
It's dead easy – I've seen it done 100 times on the Krypton Factor



The landing zone. Where the weary pilots rest and have a cuppa, or something...



Whoops! OK, so I crashed, but there was this massive sandstorm and I couldn't see a thing. That my excuse and I'm sticking to it



Err, boom!

GAMER GOLD

soldiers and features in comedy duo with Bobby Ball. The Hydras are used for almost everything else except the big buildings.

The Hellfires are particulary impressive and can be used to blow up anything big or if you're a sadist you can use them to obliterate helpless enemy soldiers. You can flick between the weapons via a quick swift stab of the spacebar.

One of the most important features when playing Desert Strike is the map option. You use the map to call up information on campaign targets. The map also tells you where the fuel, ammo, MIAs and targets are and keeps a careful check on where the enemy is.

Keeping a eye on how much fuel and ammo you've got is essential if you want to be any good at Desert Strike – although I have to hold my hands up and say when in the midst of battle I did forget about little things such as fuel, and died.

Be careful – the passion to kill the enemy might overcome you and it will be the start of your downfall.

MEGA BEATER

The big question on my lips is: "Is Desert Strike as good on the Amiga as it is on the Mega Drive?". The answer is that it is actually better. The graphics have been improved. The Amiga's 64 colour half-brite mode has been utilised and the game features realistic graphics including shadows and smoke.

The sound is a massive improvement on the Mega Drive's lacklustre attempt. Desert Strike features sound effects taken from actual Apache manoeuvres. The sound is also directional and in 3D.

What this means is, for instance, if you see a tank in the distance, as you approach it the sound gets louder and more defined. The music itself is absoultely incredible. The introduction music is adorned with some of the funkiest sounds you're ever likely to hear on your Amiga and is full of James Brown samples. The music when you complete the level is also amazing and, in the style of the 70s music revival that's happening at the moment, features some excellent, err "wakka wakka wow" guitar music. It's the best music I've heard since Thrash Pig which starred in Core Design's Jaguar XJ220.

The playability is almost faultless. I say almost because at times for some unknown reason the game slows down. But this doesn't happen too often, but I thought I'd better mention it. It's certainly not a reason to not buy the game.

It's very addictive and I can tell you this with some certainty because everyone in the Gamer office keeps on playing the damn thing and I can't get anywhere near the Amiga.

Desert Strike has always been one of my favourite games and it's nice to see that EA haven't made a mess of the conversion and actually improved the game.

It just goes to show that these consoles aren't everything they're cracked up to be and the Amiga can compete with them.

Desert Strike is probably Electronic Art's finest moment since Populous. You already know how I feel about the game, so what on earth are you waiting for? Go and get it and be enlightened. Just deserts!

JONATHAN MADDOCK



VISION
9/10
AUDIO
10/10
DIFFICULTY
8/10
LASTABILITY
8/10

93%

Desert Strike is right up my street. It features amazing graphics, unbelievable sound, brilliant playability and the bloomin' office is addicted. It's a wonder how you got this mag at all. EA's finest moment since Populous.

Publisher ➤	Electronic Arts
Developer ➤	In-house
Disks ➤	3
Price ➤	£25.99
HD Install ➤	N/A
Size ➤	1 Meg



Deep in the sprawling metropolis



Time flies by when you're the driver of a train



Night falls and strange things are afoot

A-TRAIN

Maxis leave the (Sim) city behind and let off some steam as they roll on by. Choo-oo-WOOO!

I have very mixed feelings about trains. On several occasions, I've been more than happy to sit back in relative comfort, drinking a cup of funny-tasting coffee and munching my way through a suspiciously plastic-like burger while a guy in a blue uniform takes me to London or somewhere similar.

This saves the hassle of driving to a place oneself and takes care of the even larger and more expensive headache of finding a place to park once you arrive – so trains are good, in that respect.

On the downside, I live directly behind what was formerly an industrial railway line, now converted into the so-called "tourist attraction" of the East Lancashire Steam Railway.

At the time of writing this (Sunday afternoon at home, in case anyone important is reading) I can hardly hear myself think, mainly because there are between 80 and 100 people chattering excitedly directly below my window awaiting the arrival of the Flying Scotsman, an apparently very famous train which the management have hired for a month.

This has been the case every weekend for the last three weeks, and I would just like to say that if you are one of those people who stopped your car in the middle or our road, or trampled on my mum's rosebush, or just generally made a nuisance of yourself during this hallowed Flying Scotsman period, then you ought to get yourself a god-damn life. There – I feel better now.

A-Train is brought to us by Maxis – those strategy gurus responsible for the epic Sim games (or "software toys" as they like to call them), and it would be very easy to compare it to any of their previous products, so I won't.

POWER PLAY

The basic aims are pretty much the same though – oops, there I go, a comparison already – the idea being that you must earn yourself as much power and money as possible.

Sporting the name it does, it's a reasonable assumption that A-Train will contain fairly hefty train-like overtones. But it isn't all railroading – in fact this is just one part of what is effectively a multi-challenge game.

Of course it's important to create an efficient and well patronised rail network, but equally important are developments around it – industrial, housing and recreational.

Without these, there would be no point or attraction in people travelling to a destination, so the more attractive a location the better.

Apartments, houses, offices, skyscrapers, golf courses and amusement parks all contribute to the value and attraction of a site, and all give more reason for potential visitors.

But these all need to be built first – therefore factories must be erected, manned, and put into operation. All of these projects mean parting with that well-loved wonga, and early delays in finishing could mean bankruptcy, and a perky little "game over" message.



This is where you register your engine, maybe!

Bank loans are available (and advisable) for large projects, and your profits and losses are constantly available for checking through one of the easy-to-use icons.

Back to the trains though, since these are the main subject of the game. Having constructed a workable line, with trains carrying supplies for your buildings, it's time to start earning yourself some passengers by enlarging your network.

Trains are required to carry people to and from work, and the schedules must reflect this. Also, additional trains may be required at the weekend once you have established some leisure complexes.

Laying the tracks themselves is a reasonably simple affair, although – true to life – there are only certain terrains on which a railway can be built, and therefore a line needs to be carefully planned if it isn't to cost loads more than it should.

A problem I frequently had at the beginning was that, keen lad that I am, I scheduled trains aplenty, only to find myself with several costly wrecks to take care of.

Time runs as quickly or slowly as you want it to, and a financial year is from April to April. An impressive visual touch is the atmospheric dusk and night times – much better than the very lacklustre sound.

If you are looking for a ga- er... software toy that's quick to load and good fun for half an hour, then look elsewhere. If it's a long-term challenge you crave though, then A-Train is the game for you.

There isn't any way to run out winner as such, because the game allows you to continue your powermongering until you're blue in the face, but the beauty of games such as this has always been the fact that they are virtually endless.

Sim City fans will lap this up – it's much more involved (and more fun) than SC, but be warned; although the icons are very clear and the game itself about as visual as can be, the sheer size of the whole affair means that a lot of manual reading and/or frustrating attempts are required before any satisfaction begins to seep through.

PAUL ROUNDELL

VISION

AUDIO

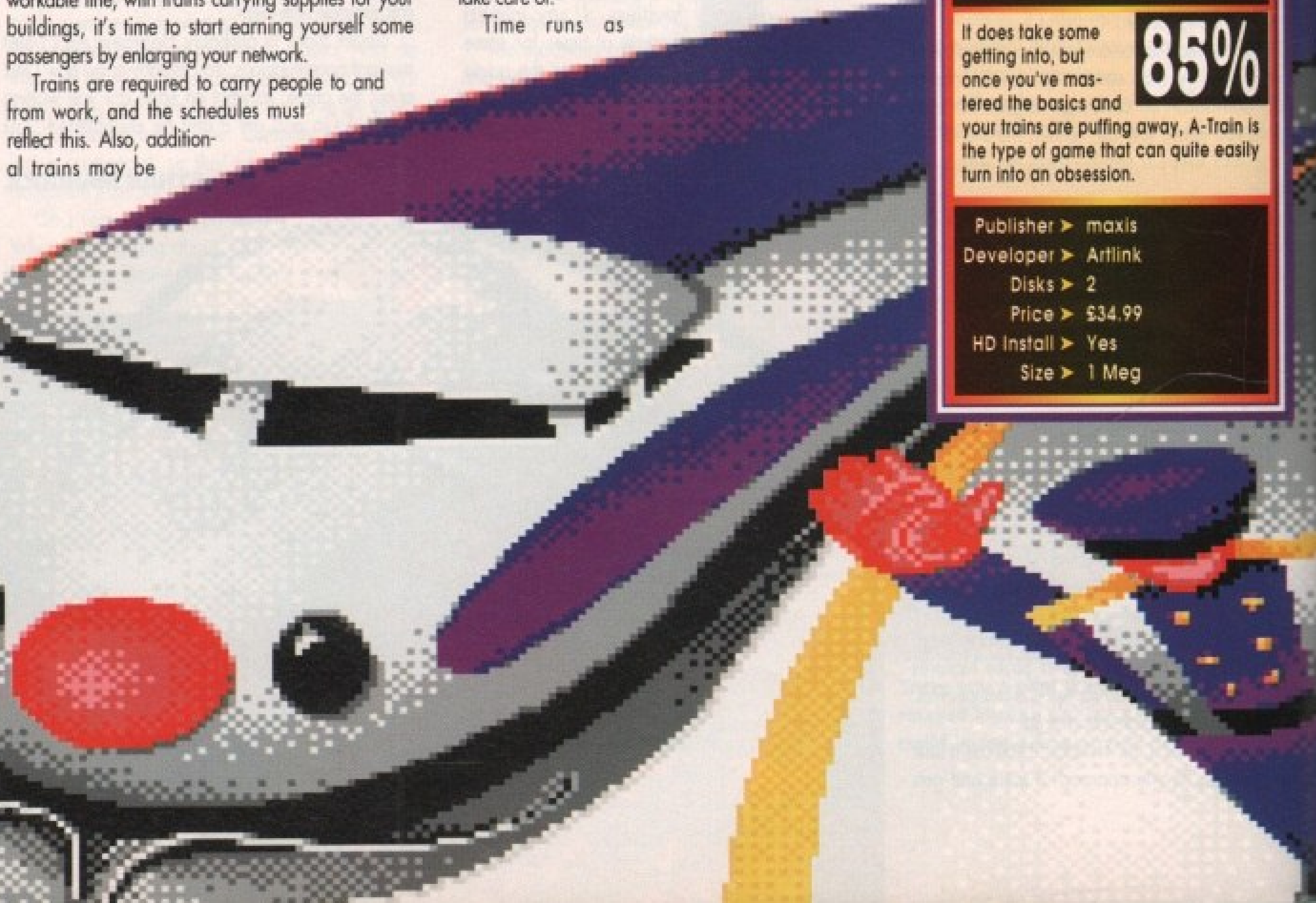
DIFFICULTY

LASTABILITY

85%

It does take some getting into, but once you've mastered the basics and your trains are puffing away, A-Train is the type of game that can quite easily turn into an obsession.

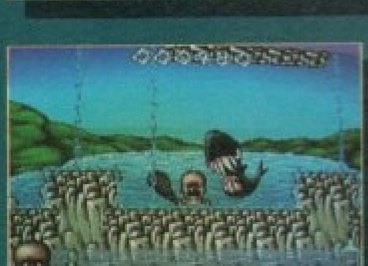
Publisher ➤	maxis
Developer ➤	Artlink
Disks ➤	2
Price ➤	£34.99
HD Install ➤	Yes
Size ➤	1 Meg



CHUCK ROCK 2
SON OF CHUCK

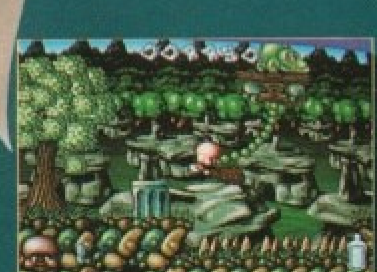




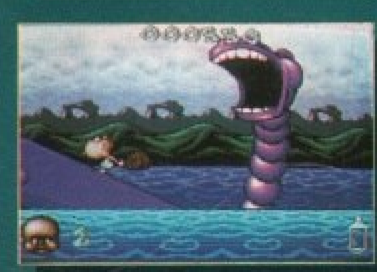


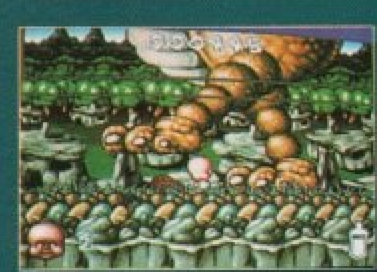


Now the successful owner of Chuck Motors, Chuck Rock has been kidnapped by his arch rival in business, Brick Jagger, the shady boss of the Datstone Car Company. Following the arrival of the ransom slab, Ophelia cries as she reads the list of demands to secure Chuck's release. Six month old Chuck Jnr. breaks out of his playpen vowing "I'll be back – with my dad!"



Join Chuck Jnr. on 6 levels of prehistoric combat as he battles through volcanoes, mountains, jungles and caves. Tackle dinosaurs, snakes, elephants, grizzly bears, monkeys, tigers and turtles on your way to the final confrontation – the showdown at the Datstone Car Company to rescue the kidnapped Chuck Rock!





CORE DESIGN LIMITED

Available on Commodore Amiga (1 meg only)

Screen shots from Amiga Version

Tradewinds House, 69/71A Ashbourne Road, Derby DE22 3FS. Telephone: (0332) 297797. Facsimile (0332) 381511

Team 17 are back again with yet another classic. Look up to the sky! Is it a bird? is it a plane? No, it's Superfrog. Hop, hop and away...

SUPERFROG





It's the fruit machine! Gamble those credits and you might win a level code. Almost as good as £150, I don't think...

Team 17 are quickly gaining a reputation as the best Amiga games company in the business. For starters they've got the right attitude. Quality and not quantity is their motto.

Almost every piece of software they've released has been without a doubt an absolute classic. Team 17 use the best graphic artists, programmers and quite possibly the best music and sound effects man in the world.

Just take a look at their list of releases. There was Alien Breed, a classic Gauntlet-style lookalike for the 90s. Project X was an amazing shoot-'em-up which blew all of its competitors out of the water. Assassin was a platform/action game, but unfortunately it was made out-of-house and suffered some major design faults, but it was still a damn good piece of software.

The boys from Wakefield then returned to form with Body Blows, a beat-'em-up that completely battered the pathetic Streetfighter 2 to death with its brilliant graphics and sound.

Team 17 have created the almost perfect Amiga shoot and beat-'em-ups, but they've always wanted to do a classic Amiga platform game. The platformer in question is Superfrog and you too will believe a frog can fly...

I always get excited about Team 17 software mainly because even before I load it up I know that it's going to be good. The graphics are superb, the sound is brilliant plus and the playability is truly excellent, almost without fail.

Making a piece of software of this type could have been extremely risky for any other company. How many platformers are instantly forgettable? Exactly, almost all of them.

Apart from a select few, good platformers are hard to find. The main problem is the platform game itself. How do you make it so that isn't alike to every other on the market? How do you make a platformer that isn't instantly compared to Mario or Sonic the Hedgehog or Zool? The answer is you can't.

Whatever product a software house releases, it is still going to be compared to another product whether it be a platform or a shoot-'em-up.

For example, any puzzler that involves the use of blocks is going to be compared to Tetris or Columns. Any interactive adventure is not going to escape without bearing some resemblance to Monkey Island 2. It's just the way this harsh computer games industry goes!

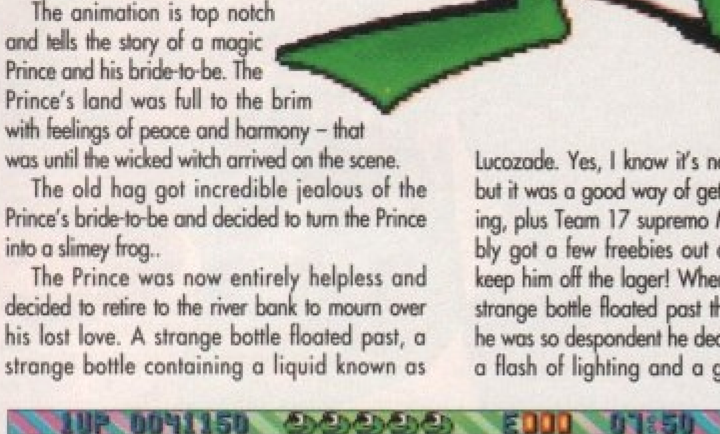
What Team 17 decided to do with Superfrog was not to make an alternative platformer, but to make a super-playable one done in the classic style of old, making use of the Amiga's superior graphics and sound capabilities.

Superfrog starts with a fantastic and very witty animation lovingly crafted and sculptured by Eric Schwartz. Eric, who you may have heard of, is responsible for loads of those cute PD cartoon animations that you see flying around. If you haven't see any then it's definitely worth ringing up a PD library just to enjoy the man's talents.

The animation is top notch and tells the story of a magic Prince and his bride-to-be. The Prince's land was full to the brim with feelings of peace and harmony – that was until the wicked witch arrived on the scene.

The old hag got incredible jealous of the Prince's bride-to-be and decided to turn the Prince into a slimey frog..

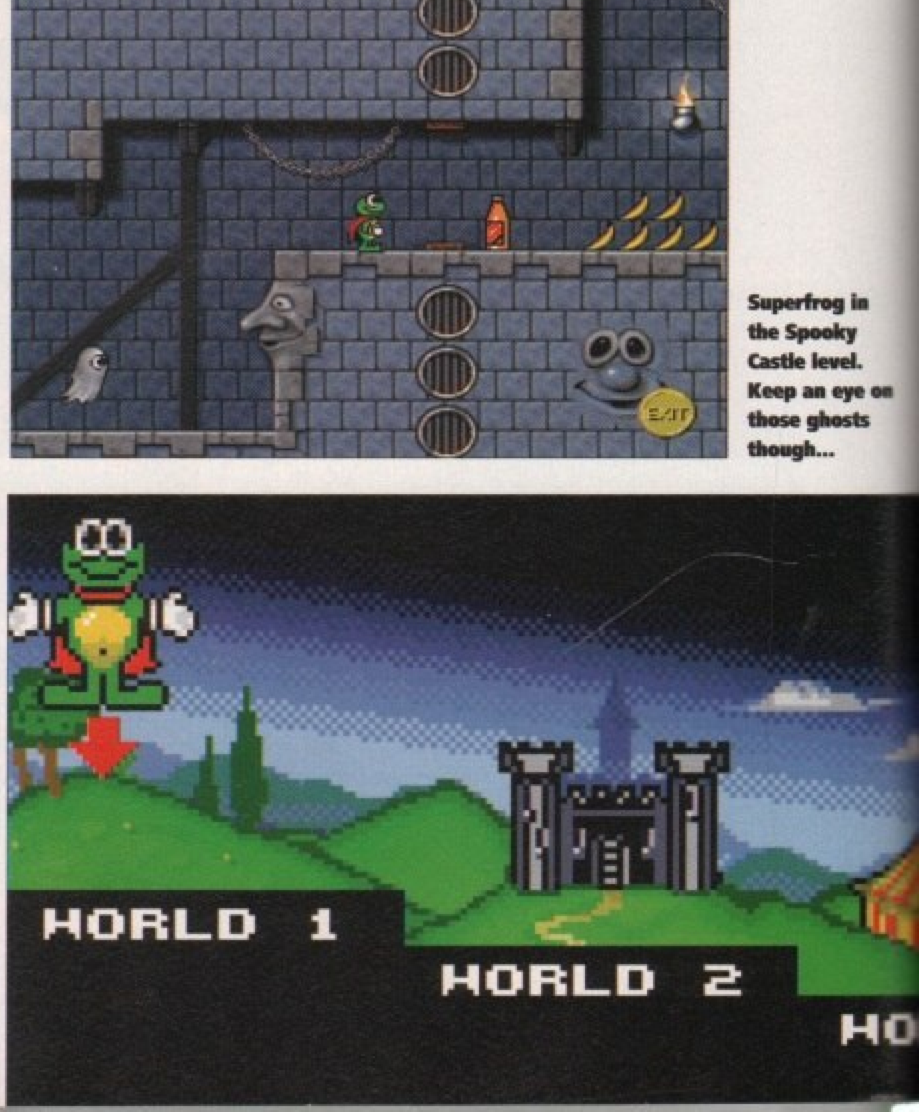
The Prince was now entirely helpless and decided to retire to the river bank to mourn over his lost love. A strange bottle floated past, a strange bottle containing a liquid known as Lucozade. Yes, I know it's not entirely believable, but it was a good way of getting a bit of advertising, plus Team 17 supremo Martyn Brown probably got a few freebies out of them. At least it'll keep him off the lager! Where was I? Ah yes, the strange bottle floated past the froggy Prince and he was so despondent he decided to drink it. With a flash of lighting and a gust of wind he had



Superfrog in the Spooky Castle level. Keep an eye on those ghosts though...



It's that Lucozade sponsorship deal in all its technicolour glory...





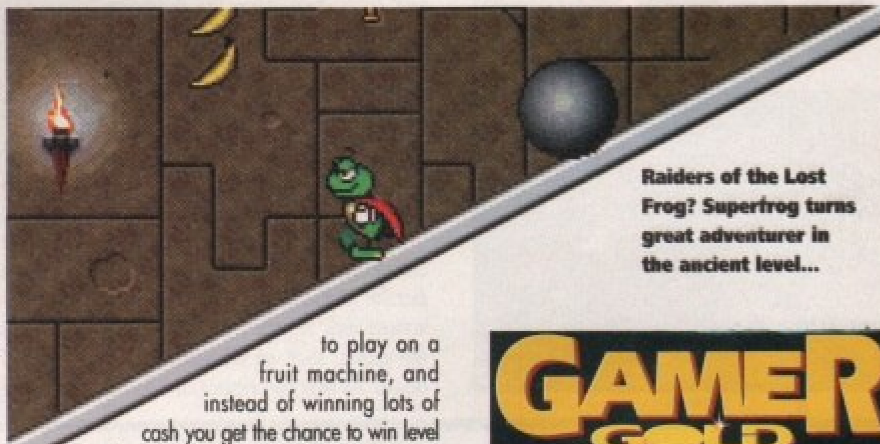
Life can be very dangerous when you're a Superfrog – those spikes look particularly nasty...



Superfrog bites the dust and goes to the big lily pad in the sky



Fancy a game of "Spot The Frog?". Our slimy friend turns invisible and invincible at the same time. Very handy for getting through this level...



Raiders of the Lost Frog? Superfrog turns great adventurer in the ancient level...

miraculously become a Superfrog.

Thus our little froggy friend decided to put wrongs to right and get his beloved Princess back from the clutches of the wicked witch.

Story time is over, now down to business. Superfrog is divided into six major worlds of which there are four sub-worlds. To complete one of these levels you must collect a certain number of coins which acts as a kind of toll fee.

The exact number of coins is shown on a large coin in the bottom right-hand corner of the screen; this number decreases as you run about like mad collecting the golden currency. The exit will only open when you have collected enough coins.

All this mental coin collecting is also against a time limit. When the time runs out so do Superfrog's powers, so placed around the levels are bottles of Lucozade which when collected up will keep his energy topped up.

There are also a number of special powers scattered around each level for you to use. Collect the wings icon and this will enable you to perform great leaps in the air. The destructo-spud is a little green blob with eyes which you can use to chuck at airborne enemies and knock them to the ground.

Superfrog can also turn invisible thanks to the invisibility pill which renders our froggy hero invincible for a short period of time. There are plenty of bonus points to be picked up. These come in the form of several different types of fruit. When you complete the level these points are converted into credits. You are given a chance to collect the points or better still gamble it all. The gamble is a chance to play on a fruit machine, and instead of winning lots of cash you get the chance to win level codes, extra lives and thousands of points.

The fruit machine is a good little feature and as far as I know it's never been before.

Controlling Superfrog couldn't be easier as the controls are very basic indeed. Although at first our slimey friend is a bit difficult to handle and seems a little bit too fast, after ten minutes of play your worries will be over and you'll be jumping and running through the levels like a newly-born spring lamb.

I don't think I need to tell you how good Superfrog is – you can probably already tell from the score-box and the bloomin' massive Gamer Gold, but hey I'll tell you anyway.

Everything about Superfrog is just so polished. Every aspect has been carefully considered and as far as platform games go they just don't get any better than this.

The graphics are astoundingly good – all the characters are wonderfully drawn and you could almost think that you're watching a cartoon.

Sound is very nice, although the tunes can sometimes get a bit annoying. A bit of funk or metal would have been nice instead of those sugary platform tunes. The sound effects are good, though, with a mere smattering of sampled speech.

It plays like a dream. At first it looks extremely basic, but as you progress it becomes more intricate and increasingly more difficult.

This looked as though it could be aimed at small children and would be very easy, but stick it on the harder level and even the most experienced gamer is going to have his or her work cut out.

Superfrog is quite simply Team17's greatest release to date. It's full to the brim with great graphics, sound, playability and addiction. You'd have to be completely potty or hopping mad to ignore it. 1993 is going to be Team17's year, I can feel it in my bones...

JONATHAN MADDOCK



With a smile on his face Superfrog decides it's time to save the day. Hop, hop and away...



The map of Superfrog's home world, but notice the mysterious sixth world is not pictured...

GAMER GOLD

VISION — 10/10
AUDIO — 8/10
DIFFICULTY — 8/10
LASTABILITY — 8/10

93%

Team 17 have taken a bog-standard platformer and enhanced it with superior graphics and sound and massive dose of unsurpassed playability. This will be the platformer that all others will be judged against.

Publisher ➤	Team 17
Developer ➤	Team 17
Disks ➤	3
Price ➤	£26.99
HD Install ➤	N/A
Size ➤	1 MEG

THE HUMAN RACE
The Jurassic Levels

Mirage's Neanderthals are back for another 80 levels of cartoon caveman capers



It doesn't seem two minutes since I was sitting at this very desk outlining the plot to a game which I thought seriously rivalled Lemmings in the addiction stakes.

Humans was released around February, and judging by the response it received (around 75,000 units sold so far), many of you shared my opinion.

Time has moved on a little, and we now find ourselves with a new tribe of Humans in the Jurassic period (circa 180,000,000 BC, for the curious).

If you already own Humans, or have played it, the only thing you need to know about the data disk is that everything is exactly the same, and all the original discoveries such as the rope, torch and wheel are present from level one – the difficulty level of which is equivalent to the later levels of the first effort.

For newcomers, I will explain further – read on, read on...



Silly gubbins aside, the aim of the game is to take your Humans from one end of a level to the other, minimalising fatalities as much as you can.

There are platforms to be reached, gaps to be crossed and everything else you would expect in a puzzler of this nature. You will be provided with various aids to your quest at intervals throughout the game, such as the rope etc as mentioned above. As was the original, The Jurassic Levels are set in six different landscapes – summer, winter, cave, desert, forest and swamp – the graphical quality of which are excellent.

Tunes or sound effects can be toggled, the in-game animations are great, a password is provided for each of the eighty levels and dinosaurs, rival tribesmen and pteradactyls pop up from time to time to help or hinder.

The expressions and exclamations of the Humans delight me as much now as they did five months ago, although it's a bit too soon for me to sit down and fight my way through another 80 levels. The early difficulty may prove daunting for the uninitiated, but it's worth persevering with – and for those of you who've played it and loved it before, what more need I say?

PAUL ROUNDELL

PS: Watch out for Humans in Space in the summer!

VISION 8/10
AUDIO 7/10
DIFFICULTY 8/10
LASTABILITY 8/10

86%

Humans was up there with Lemmings in the hilariously addictive stakes, and since this effort is simply another helping, it's right up there too.

Publisher ➤	Mirage
Developer ➤	Imagitec
Disks ➤	2
Standalone Disk ➤	£29.99
Data Disk ➤	£19.99
HD Install ➤	n/a
Size ➤	1 meg

NIGEL MANSELL'S WORLD CHAMPIONSHIP

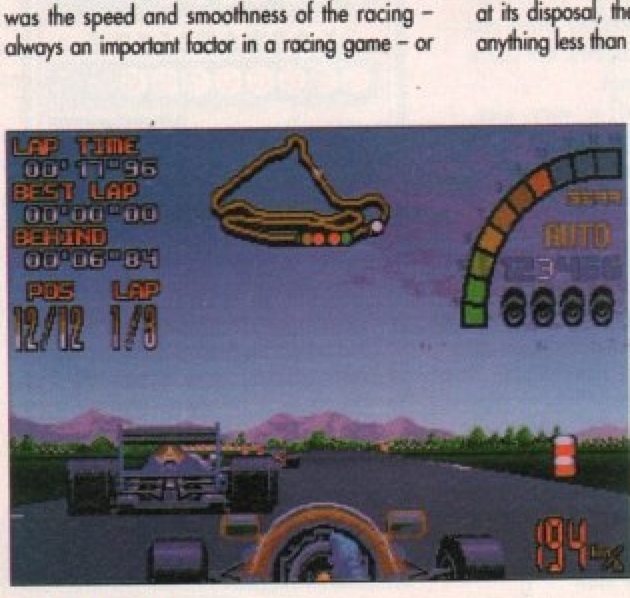
A1200 Game

Nigel's done a runner, but his memory lives on for the Amiga aristocracy

Mansell's scored 79 per cent in February's Gamer – not bad by any means, but certainly not indicative of the type of product we've come to expect of Gremlin over the last couple of years.

The main reason for this relatively low mark was the speed and smoothness of the racing – always an important factor in a racing game – or rather, the lack thereof. With the difficulty set as it was, the updates were too slow, and therefore too jerky, to present an accurate simulation of high speed racing, and consequently Mansell found itself lacking in the excitement department.

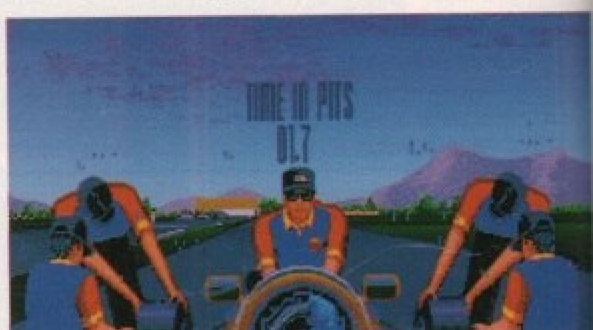
Now though, with the full power of the A1200 at its disposal, there surely can be no excuse for anything less than a fast, smooth ride?



The first noticeable improvement is the speed of loading, which is only to be expected when you consider the capabilities of the A1200.

Once loaded the game offers exactly the same as did its multi-compatible counterpart, as it is of course nothing more than an enhanced version.

Scenery-wise there is no change – or at least, not in the way it looks. The speed it zips by at though has changed dramatically. Gone are the jerky updates, replaced by moderately fast, smooth 3D scrolling, improving control over the car a great deal.



Difficulty in overtaking other racers is still there, but now instead of being frustrating it makes play more challenging due to the overall improvements in gameplay.

Disk swapping is minimalised thanks to your 2Mb of RAM, and even the winning sequence I complained about originally takes much less time to appear at the end of the race.

Whereas the mass market version of NMWC is nothing more than a good quality racer in a large field, the A1200 promotes this attempt to the front line of the starting grid with the likes of Lotus 3 and Jaguar XJ220.

I still don't believe Gremlin have gone as far as they can with the A1200 however, and look forward to testing out the first specific race game for the machine.

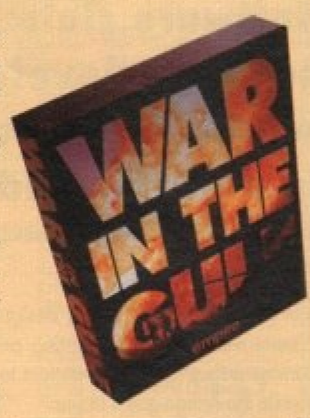
PAUL ROUNDELL

A1200 SCORE	ORIGINAL SCORE
85%	79%

Bargain price games!

Amiga Computing and Empire Software bring you four excellent strategy/ flight sim/war games at great prices.

War In The Gulf
Only £29.99



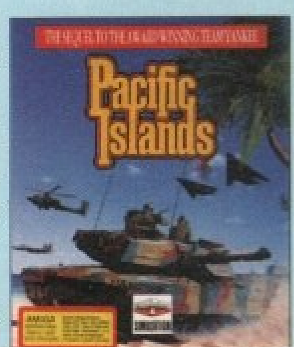
This is the brand new, long awaited sequel to the award-winning Team Yankee and Pacific Islands. It's 1995 and the Iraqi Republican Guard have overrun the oilfields of Northern Kuwait

War in the Gulf follows the fortunes of a crack unit of M1 tanks as the action unfolds. There are 25 battlefields, which can be viewed from four different perspectives.

You control four tank units simultaneously controlling 16 different vehicles through the unique split-screen control system. You have the latest military technology to liberate Kuwait.

1Mb required, 500, 500+, 600, 600HD, 1000, 2000, colour TV / monitor, keyboard and mouse, joystick.

Pacific Islands
Only £24.99

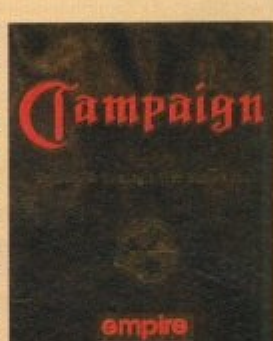


In this Gamer Gold award-winning strategy, disaffected Renegade Soviet communists backed by North Korea have invaded the Pacific atoll of Yama Yama.

It is your job to command four tank units to retake all five islands on Yama Yama. Pacific Islands involves multiple objectives. As well as winning individual battles you have to think about funding your campaign, destroying enemy communication facilities and trying to spot opposition scouts before they give your position away.

Amiga 500, 500+, 600, 600HD, 1000, 1200, 1500 or 2000 with 512k RAM. Workbench 1.2 or higher, mouse & keyboard compatible, joystick optional.

Campaign
Only £29.99

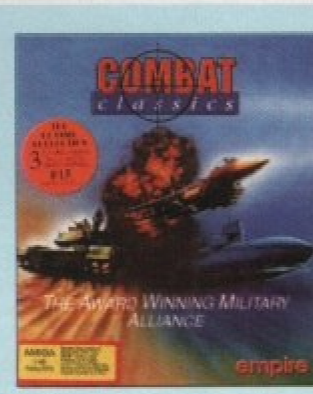


This very sophisticated war gaming system uses accurate information from World War II campaigns and individual battles.

It incorporates stunning 3D, top-level simulations and in-depth strategy. Along with the Campaign gaming system software, every box contains map editor software, an extensive user guide and gameplay manual incorporating historical background, vehicle factfinder and campaign maps, two World War II propaganda posters and postcards, a D-Day landings battleplan map and authentic wartime newspaper reprint.

Amiga 500, 600, 600HD, 1000, 1500, 2000, 3000, Workbench 1.2 or above. Mouse and keyboard control required.

Combat Classics
Only £24.99



This superb value pack contains three great military simulations.

F15 Strike Eagle II
There are hundreds of missions to be flown in the re-created high-tech surroundings of the US Air Force's premier dog fighting and strike jet, in six real-world locations, with ten viewpoints.

Team Yankee
This action simulation of modern tank warfare tests your leadership and tactical skills to the full. You can control all four tank platoons simultaneously and zoom in on any platoon to check on their progress and status.

688 Attack Sub
You are in control of a top secret, billion-dollar attack submarine in the most notorious political hot-spots of the globe. There are ten different scenarios with infinite play possibilities in which you use the world's most advanced technology and weapons.

1Mb required, 500, 500+, 600, 600HD, 1000, 2000, Colour TV / monitor, Keyboard and mouse, Joystick optional for F15-2

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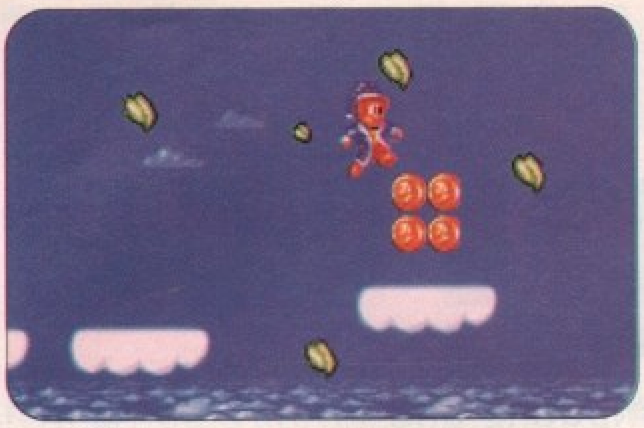
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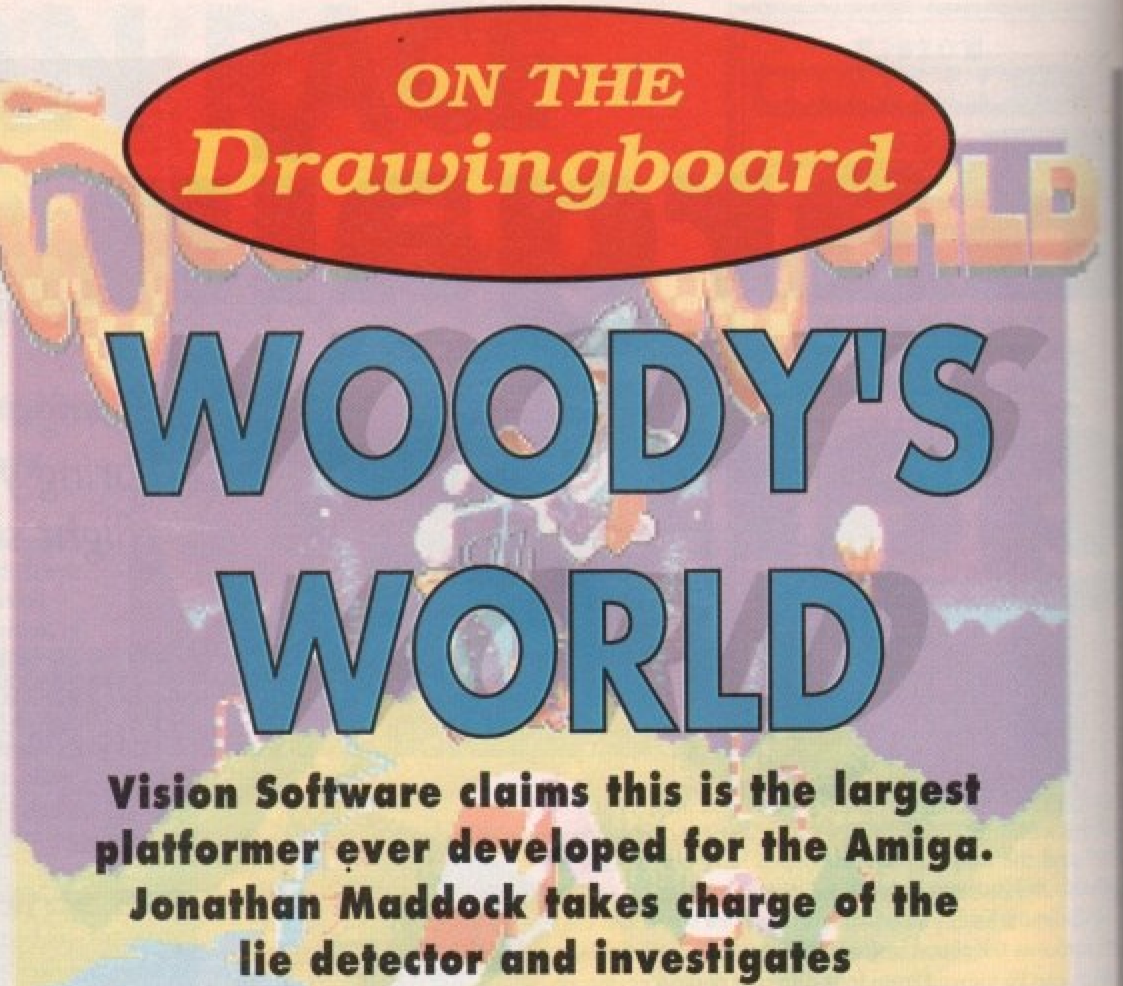
Woody's World – definitely a game with its head in the clouds!



Watch out Woody! Here we are in the outside stage, just one of the 60 levels

ON THE Drawingboard

WOODY'S WORLD



Vision Software claims this is the largest platformer ever developed for the Amiga. Jonathan Maddock takes charge of the lie detector and investigates

Vision Software are relatively unknown by anyone's standards, but are already making big waves in the sea of Amiga gaming. Cast your minds back to November 1992 and Amiga Computing's CoverDisk.

What was on that fabled CoverDisk I hear you cry? Well, it was nothing more than Cybernetix, quite simply the world's greatest shareware shoot-'em-up.

Vision Software had created a modern day masterpiece – a Defender clone with visually stunning graphics and marvellous gameplay. Cybernetix could easily have been released at full-price and made pots of cash.

The year is now 1993 and some clever person at Digital Marketing International (DMI for short) snapped up the boys at Vision Software. Locked in a cupboard for seven months, they re-appeared, some disks clutched in their hands. Woody's World had been born.

The lads at Vision had noticed that there were loads of platform games around, and that unfortunately many of them were rubbish.

They decided to make the best platformer the Amiga world had ever seen. The ingredients were to be amazing graphics, brilliant sound, but most of all unmatched playability.

One thing you notice about Woody's World is that it's 1Mb only, an increasingly popular move. Paul and Rod, the game's programmers and designers, commented on the decision to make Woody's World 1Mb:

"We've decided to take the 1Mb Amiga standard and fit as much game into this configuration as possible."

They go on to say that: "Without paying too much attention to the current batch of Amiga platform games, we've tried to develop a unique style in Woody's World.

"From the graphics and music through to the layout of the levels, all of our design decisions were aimed at creating an expansive unique game environment to challenge the Amiga game player."

Woody's World features more than 60 levels to explore and each takes up 64 screens. It also features over 20 graphical styles, more than one hour of background music, super smooth scrolling and masses of secret rooms and hidden bonuses.

The platform adventure is set in a mysterious land where six castles have been overrun by menacing baddies.

Woody, the hero, must rid each castle of its evil inhabitants and free the land of all evil.

Woody is not normal. During the platform fun and action he changes his identity more often than I've had hot dinners. Woody can change into Prince Woody who has the ability to slide through gaps and kick baddies or he can change into King Woody who can enter special rooms and access even more levels.

We received a preview version of Woody's World and it's almost finished except that it still has a couple of bugs and elements of gameplay to tidy up before DMI release the product.

Even though it's the preview version I can tell that Woody's World is going to be an Amiga chart topper.

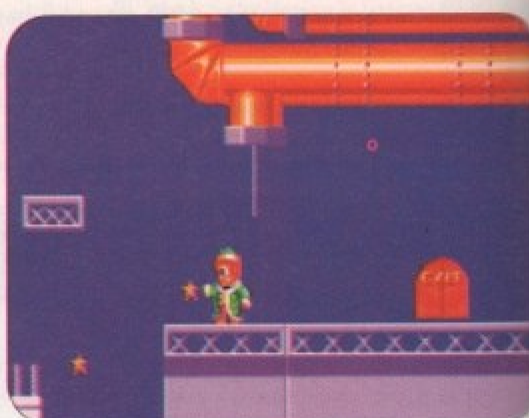
The reason is simple. Ben, Gamer staff writer and boy genius, is not that fond of platform games, but Woody's World has kept him captivated for almost a full week!

This is unheard of in Gamer circles – the words Ben and platform just do not go together. I was so shocked I had to go and lie down in a darkened room, so you can see why I'm so sure it's going to be a classic.

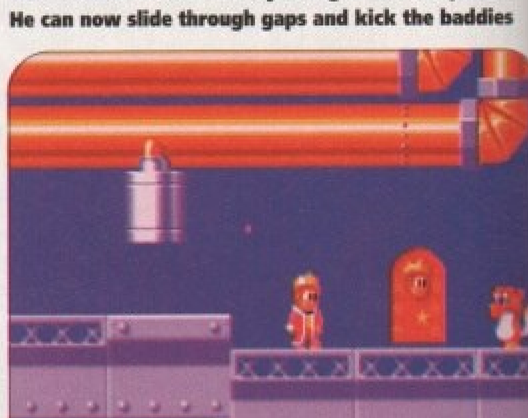
Woody's World not only plays like a dream, but also looks like one with delightful cartoon-like quality graphics displayed in 32 colours. The music is also of a very high standard and gently bops around in the background while you waggle your joystick furiously.

Rod and Paul say they have created the biggest and best Amiga platformer to date and I believe them. Vision have already made a name for themselves via Cybernetix, but Woody's World is guaranteed to shoot them up into the big time.

It will be available on DMI's Global label in the next month or so and will cost you £25.99. Not much to ask for the world's greatest Amiga platformer.

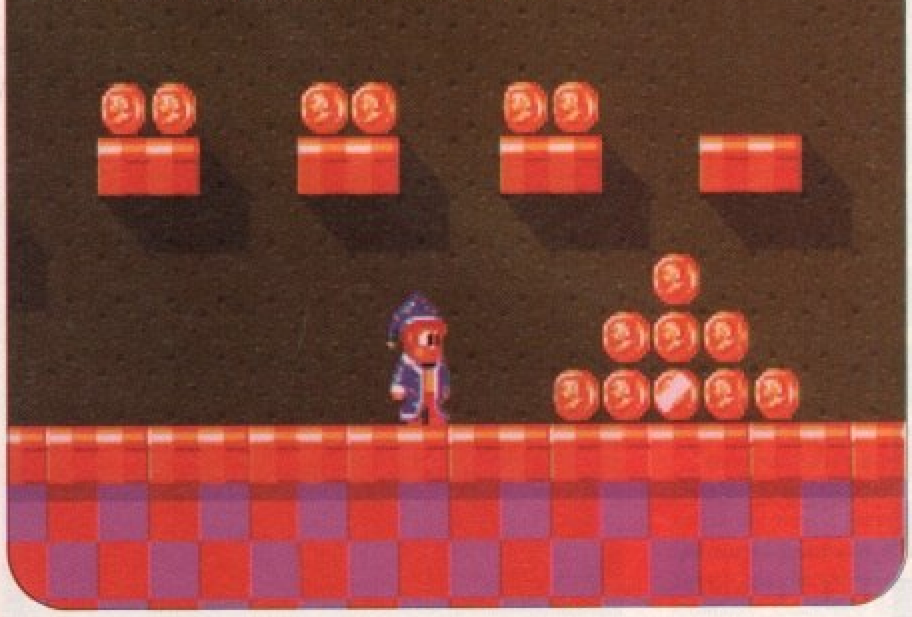


With a flash of stars Woody changes into the prince. He can now slide through gaps and kick the baddies



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Sound FX No.298: Blam, squish, drip, drip, splish.



Roly says "Get off my cakes!" The fat porker gets mean and angry in this platform runaround and blast-'em-up...



A nasty, dribbling, smelly and downright stinky alien – and he's got bad breath as well

ALIEN 3

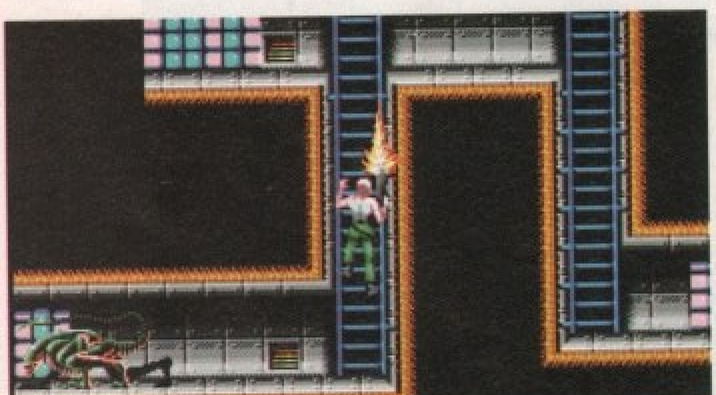
Ellen Ripley is back, but so is the bitch, and something tells me it's going to get very bloody. Hudson, we are leaving...

When I first heard about Alien3 I was as excited as a pervert in a whipped cream factory. The battle between Ripley and the alien has raged on for over 14 years now. You would have thought that a software house such as Ocean or US Gold would have signed up the licence.

The only piece of software I can remember is a dreadful and very sad attempt which appeared on the good old Spectrum. Thanks to Probe Software Alien3 is now on the Amiga, so sit back, absorb the atmosphere and enjoy.

It does not follow the exact plot, the reason being that the film would not make an entertaining bit of software. As fans will I know, Alien3 doesn't feature any weapons because it is set in a prison colony and that in itself would make the game a bit boring.

A second reason is the fact that Alien3 only features one alien and even a super alien wouldn't last long against Ripley. What Probe have done is added loads of weapons – pulse rifle, flame thrower, and so on – and loads of aliens. The game is actually more like the original Aliens than Alien3.



Nothing compares 2 U. Ripley starts off a less than successful pop career

The plot is very simple indeed; the aliens have taken over the colony and turned it into a breeding ground by using the prisoners as hosts for alien eggs.

Ripley has to rescue the prisoners – by putting them out of their pain and misery – and waste all the aliens.

This is basically a simple platform and blast-'em-up, but it works much better than the average simply because you can already relate to it. What Alien3 has which most do not is atmosphere – and bags of it to boot.

Ripley can flick between four sets of weapons (see below for details) but unfortunately they are all rather limited. This means you have to be careful otherwise you'll be weaponless and helpless. You can replenish your armoury if you're lucky enough to find the appropriate icons.

Alien3 is a complete and utter gore-fest with blood and, in the aliens' cases, acid flying all over the place. Graphically it is quite impressive. The main Ripley sprite actually does look like the heroine of the films, but unfortunately she could also easily be mistaken for Irish popstrel Sinead O'Connor.

The alien sprites are just as impressive, very mean and menacing. The backdrops are well drawn and add to the dark and intense atmosphere.

There is a choice to be made on the sound front between music and sound effects – you can't have both! The sound effects are fairly naff apart from a nice squishing when you blow an alien to bits. The controls are easy enough, apart from the annoying fact that you have to press the spacebar to change your weapon.

It's not original by any means, but other platformers pale in comparison thanks to the dark moody graphics that generate such a spooky atmosphere.

Alien3 is as good as the Mega Drive version and any Amiga-owning Aliens fan is going to want to rush out to buy it.

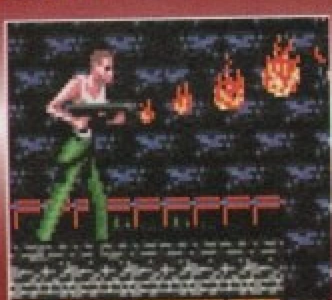
I would heartily recommend it to anyone, but as it's basically a bog-standard platformer it comes down to personal preference. If you want a cutesy platform game take a peek at Superfrog, but if you want a violent, dark and moody one, then Alien3 is definitely your cup of tea. Hudson, we are leaving...

JONATHAN MADDOCK

Weapons detail



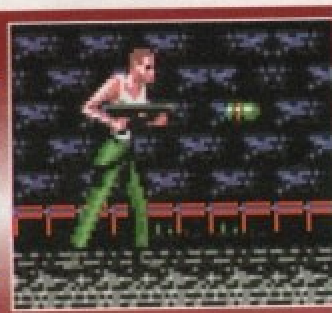
● Pulse rifle – A machine gun type thingy. It's not very hard, but shoots a lot of bullets.



● Flame thrower – Good for lighting ciggies and even better for torching smelly aliens. A good close range weapon.



● Hand grenades – A good ol' couple of explosive eggs rammed down the alien's throat and Bob's your uncle. Excellent for total destruction.



● Grenade launcher – Sort of like the hand grenades, but you shove them down the barrel of a gun. Very lethal, but slow to reload for a second shot – although get 'em on target and you won't need one.

VISION ●●●●●●●●●○

AUDIO ●●●●●●●○○○

DIFFICULTY ●●●●●●●○○○

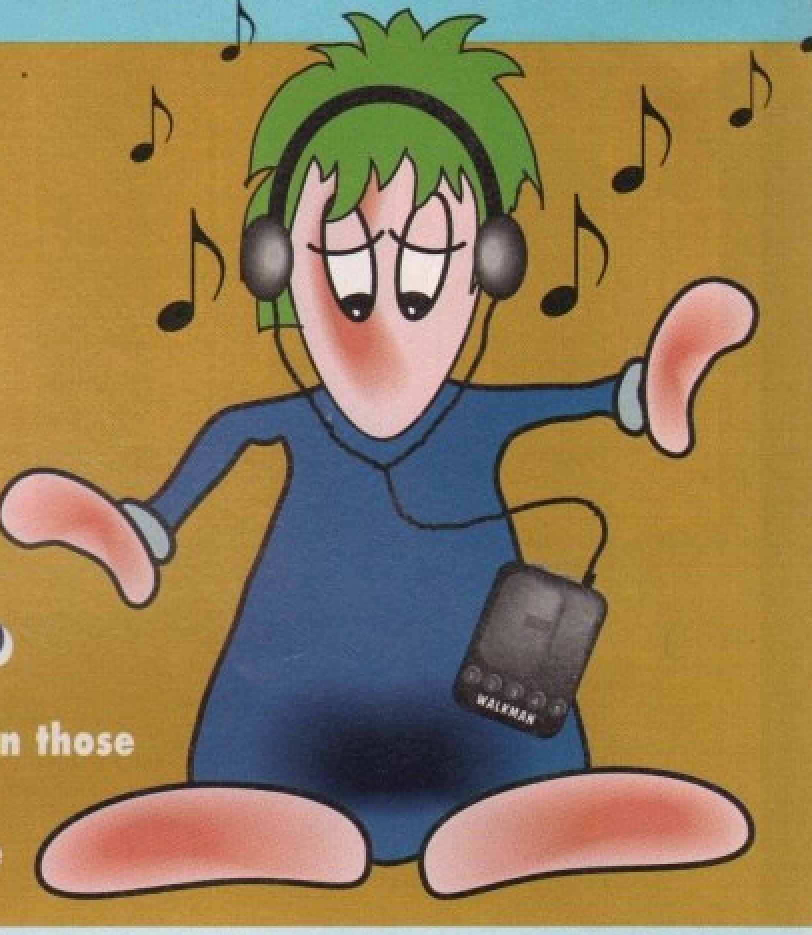
LASTABILITY ●●●●●●●○○○

85%

Alien3 is my kind of game. It features great atmospheric graphics, fairly decent sound, good playability and is packed with tons of violence. A bog-standard platformer, but it quite literally oozes atmosphere.

Publisher ➤	Acclaim
Developer ➤	Probe Software
Disks ➤	1
Price ➤	£25.99
HD Install ➤	N/A
Size ➤	1 meg

They're justified and ancient...



...and they like to walk off cliffs. A bizarre tie-in between those suicidal lemmings and the producers behind the KLF is about to yield a record. Ben Styles went to find out more

Tie-ins between software firms and record companies are the in-thing these days. Mario, Tetris, Mega-Lo-Mania and Sonic the Hedgehog all have records on sale or well on the way.

Latest in the long line of computer-generated music makers is Lemmings 2, so we went down to Food Records in London to see what's cooking there.

Behind the production are Ian Richardson and Nick Coler, whose company is famous mainly for the discovery of Jesus Jones, whose lead singer coincidentally owns half of the studio.

The person mostly responsible for their involvement in the Lemmings record is the games-playing A&R man Miles who was approached by Psygnosis and decided it would be a bit of fun. Money is definitely not their motivation for the record – they don't expect to make much out of it at all.

The studio itself is quite small, and not really knowing the workings of such a place, I was baffled by the presence of a large TV which was suspended above the mixing desk.

"What's that for?" I asked innocently, thinking it was going to be a key part of some technical video-making process.

"I'll show you," and so Nick turns on the TV showing me today's edition of Yogi Bear, "and the horse racing's pretty important," he says.

So much for the high-powered world of pop! This is not the first record that Ian and Nick have been involved in. Remember the fun but nevertheless ridiculous Doctorin' the Tardis that got to No 1 a few years ago? You will be relieved to know that it was produced by the KLF team under another name.

Those early successes got Nick and Ian on Top of The Pops wearing silly costumes and the like. Possibly the most remarkable thing about the fame was the acquisition of a brand new Jaguar XJS from Freddie Starr (honest) following a bet on the record.

About the only thing Ian and Nick had in common in the first place was that they both had an interest in music and had worked in mental institutions at some point in their life. They didn't reveal whether that was a help or a hindrance!

The record itself will not just be something you listen to, for on the 12in mixes will be solutions to various levels of the game. We are not entirely sure how they plan to incorporate them onto the vinyl – let's hope it's not a backwards message or they will probably end up being blamed for another teenage suicide!

● *Lemmings 2 – The Record will be available on the 4th May at the usual price. The company's new dance label, Synthetic, will be dealing with distribution.*

Miles, the man who gets paid for listening to people



Ian Richardson even looks like he knows what he's doing



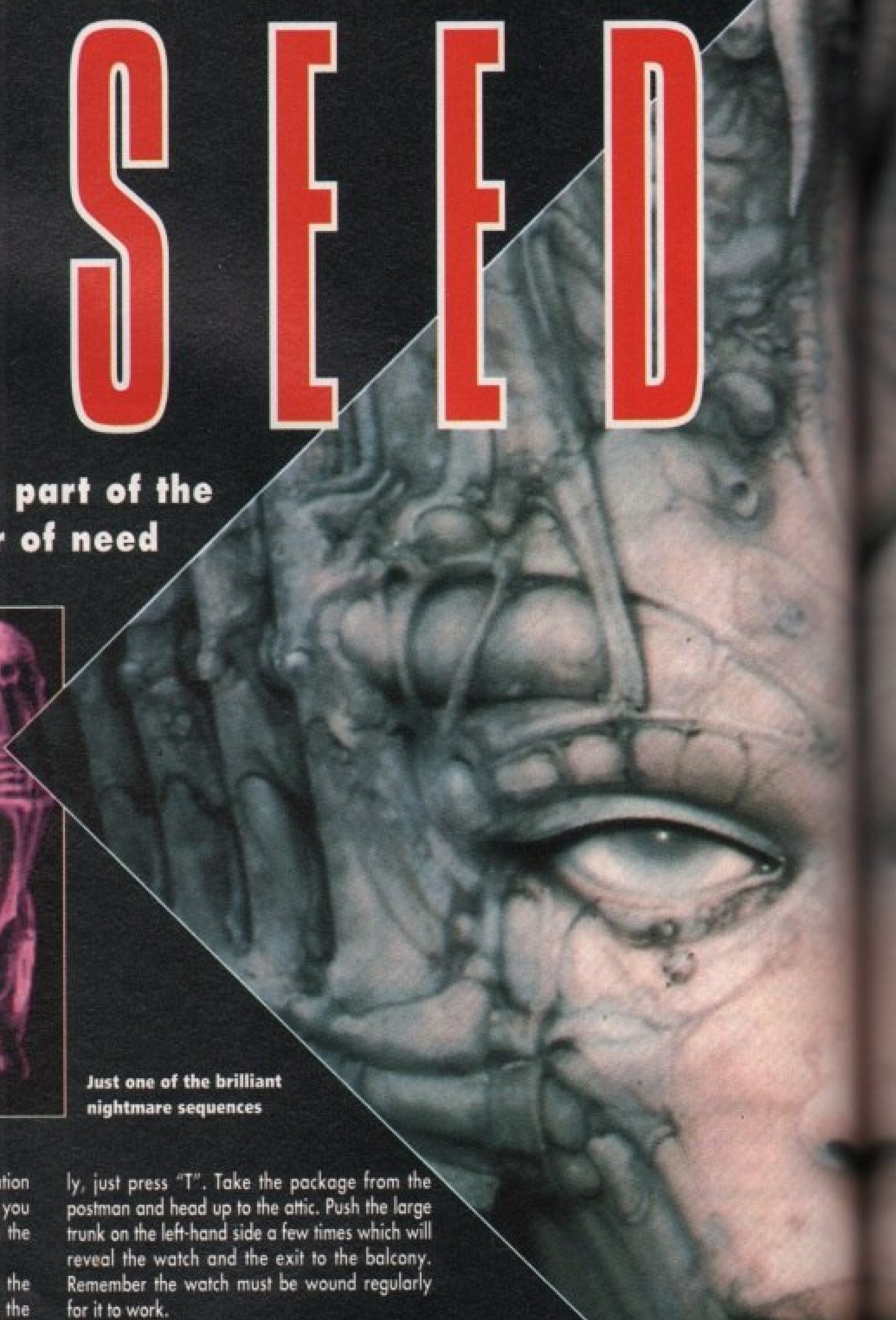


Nick Coler: hard at work as always, it's non-stop in the world of pop

DARKSEED

Welcome once more to Cheat Mode, the part of the mag designed to help you in your hour of need





Just one of the brilliant nightmare sequences

This month's cheat is a walk-through solution to Dark Seed, Funnily enough it's from the lofty mind of Ben, who doesn't usually do any work but liked the game so much that he decided to have a go...

Dawson will wake up in the morning with an immense headache,. This you have got to get rid of or you won't be able to do anything with him. Go to the bathroom and click on the cupboard. This will make him take an aspirin.

Then you must take a shower or else no-one will talk to you when you go into town. You should repeat this process every morning. Next go into the spare room and use the exclamation mark icon on the old coat. After a few clicks you will discover there is an old library ticket in the coat.

Go downstairs and into the study, read the blueprint and find the secret room. Open the bookcase on the right and go to Secret Room 1. Once you have gone through the door it is important to leave the door open – if you don't you won't be able to use the turbo lift in the Dark World.

Climb the ladder and get the rope, and exit into your bedroom. Go and wait for the postman to call. Remember if you want to pass time quickly, just press "T". Take the package from the postman and head up to the attic. Push the large trunk on the left-hand side a few times which will reveal the watch and the exit to the balcony. Remember the watch must be wound regularly for it to work.

Go on to the balcony and tie the rope to the gargoyle. This gives you a back door as it were, but don't use it yet.

Go to the garage and get the crowbar from the car boot and the gloves from the glove compartment. On your way back to the house, read the paper that is lying on the pavement.

Eventually the phone will ring in your bedroom. Answer it – you have to hurry or it will stop. It's the librarian telling you to come and pick up a book. Before you do so go into the attic and use the crowbar to open the trunk and get the



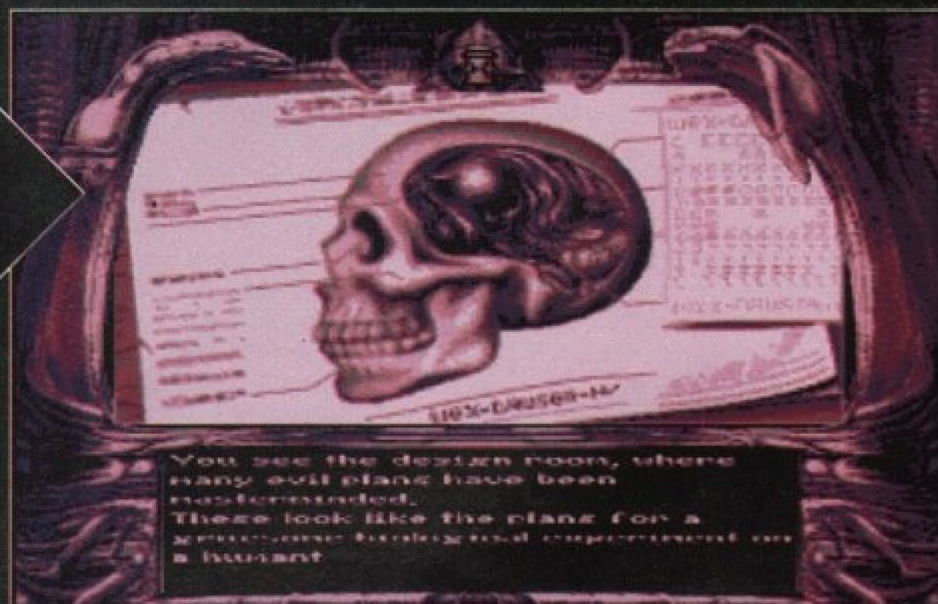
A tasteful view of the alien landscape through binoculars



An unpleasant room on the Dark Side



One of the not-so-secret rooms



A diagram explaining what is going on inside your head

diary. Have a good read.

Go to the library, take the bobby pin from the floor and approach the librarian. She will direct you to your book which you should take and read. Go back to her and give her the library card. She will tell you to go put it back in one of the books, inside which is a piece of the missing diary.

On your way back, take time to go to the store. You need to buy Scotch – pay the shopkeeper first. When Delbert now makes an appearance, give him the Scotch and he will give you a Get Out of Jail Free card which will come in very handy in Day Two.

Go past the house and take a trip to the graveyard and beyond that the Tuttle crypt. Enter the crypt by following the instructions in the diary. Go into the urn room where you will find the key to the clock case in the urn on the far left on the bottom shelf. Take it and head back out.

Once home, use the key to open the clock case in the front room and admire the John McKeegan name plate. Take time to examine the mirror and the picture above the mantlepiece.

Then put Dawson to bed. After the gruesome dream you wake up and shower and take the aspirin as before. Before the postman arrives, go listen to the car radio. This will help Dawson discover that what happens in one world is reflected ➤

Item	Location
Aspirin	Bathroom cabinet
Library card	Rain coat pocket in spare bedroom
House plan	On desk in study
Rope	On the floor in secret room number two
Watch	Under the big trunk in attic
Crowbar	In the boot of the car
Gloves	In glove box
Diary	In big trunk in attic
Bobby pin	Library floor
Scotch	In the store
Clock case key	Tuttle tomb urn room
Mirror fragment	Delivered by postman
Shovel	Entrance to catacombs
Diary fragment	Grave of John McKeegan
Gun	Police station
Stick	Delbert's back yard
Head band	From Sago in prison corridor.
Microfiche	From the keeper of the scrolls
Axe handle	Delivered by postman
Scotch	In the store
Car Keys	In cellar under the stone



The final resting place of old man Tuttle

in the other.

Go back into the house through the front. From now on you should use the rope at the back to get in and out of the house. Press "T" a few times and the postman will come.

Take the mirror fragment and use it on the mirror. This completes the passage to the dark world and you can now step through the mirror.

Once through, take the right-hand door in the nursery to the room of skulls, then take the room on your left. This room contains the plans for embryo implantation.

The plans can't be picked up, so just read them. Take the right-hand door into the turbo lift Room 1 and step into the lift on the far wall. This will take you up to the second teleport room from which you should exit left onto the observation deck.

Use your gloves to activate the switch between the two exits this will open a previously unopened door in the skull room return and go through the new door. Keep going left and you will find a shovel, save this for later.

Leave the Dark World, go to the graveyard and dig up the body of John McKeegan. Read the last part of his diary – it advises you to start the car and break the mirror.

When you get home you will find yourself under arrest for digging up the grave. The Get Out of Jail Card will get you out, but first you must put the bobby pin the gloves and the money under the pillow in the cell.

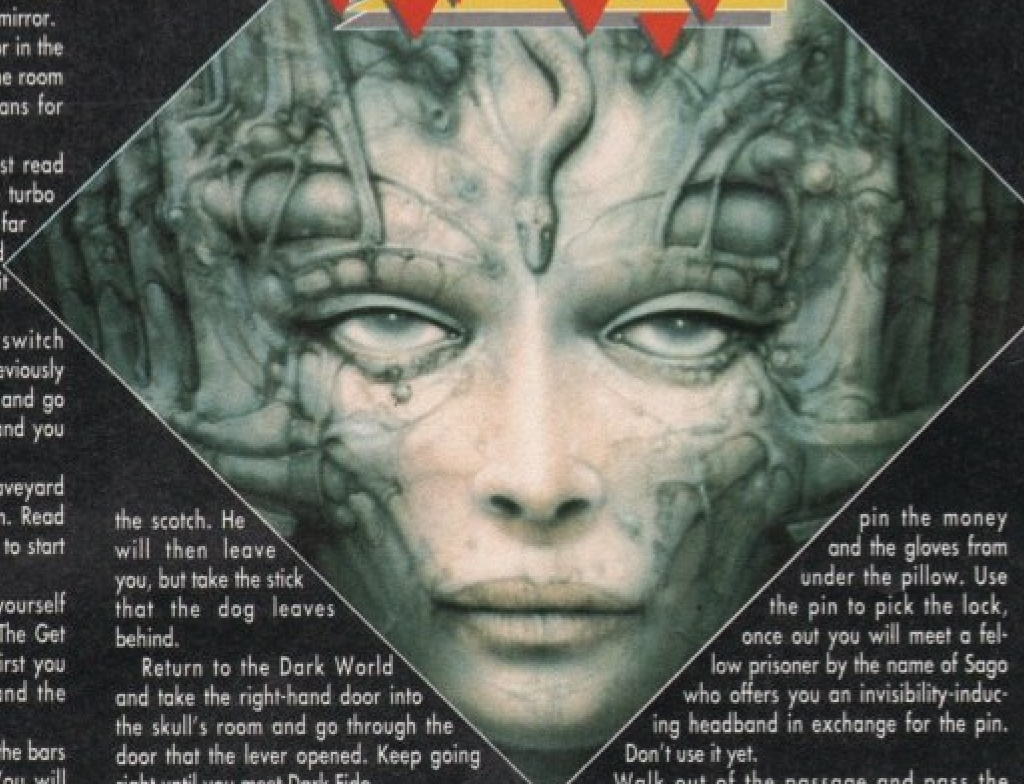
Get out by rattling the tin cup against the bars and give the card to the policeman. You will have enough time to steal the gun which is just above the desk in the office.

Go and meet Delbert as arranged. He'll meet you in your backyard, not his, but follow him next door. He will ignore you until you give him the scotch. He will then leave you, but take the stick that the dog leaves behind.

Return to the Dark World and take the right-hand door into the skull's room and go through the door that the lever opened. Keep going right until you meet Dark Fido.

To get past him simply throw the stick over the side into the abyss. You are now free to continue right to the dark police station, although you find your gun confiscated and you are put in a cell. Test the Synchronisty theory and take the pin the money and the gloves from under the pillow. Use the pin to pick the lock, once out you will meet a fellow prisoner by the name of Sago who offers you an invisibility-inducing headband in exchange for the pin. Don't use it yet.

Walk out of the passage and pass the Drakketh factory you will find yourself at the front of the archive building and now is the time to use the headband. You can now walk past the guard to the chamber of the Keeper of the Scrolls.



Turn the machine on and you will see an image of the Keeper. She will then give you a role of microfiche which you will need tomorrow. Now go home and go to bed.

Take your morning aspirin and shower as usual. Go and wait for the postman to arrive – he will bring you a package which contains the axe handle. Now take a trip to town using the rope from the balcony. Always use this to enter and leave the house as the police are waiting for you.

Go into the Periodicals room in the library and turn on the microfiche reader pop in the roll of film and read the section about home improvements.

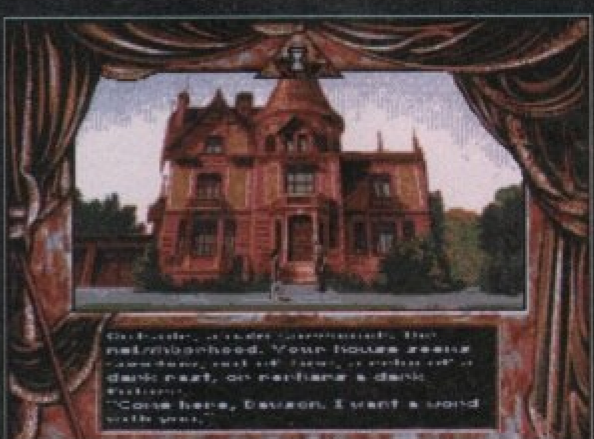
Next you need keys to the car which are in the cellar so hurry there and pick up another bottle of scotch on the way. Go into the cellar where you will find a loose stone in the middle of the cellar pick up the stone and the keys will be underneath them, keep the stone as well.

Now cross to the Dark World once again and take the stone to the power Nexus use the machine on the left to energise the stone, and fit the stone and axe handle together to make a hammer.

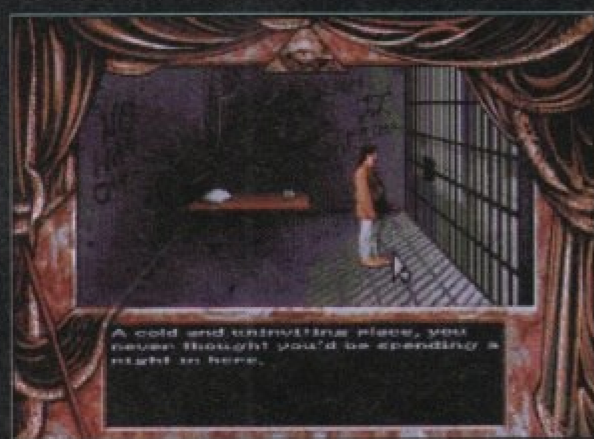
Go back to the normal world and enter the garage. Fill the petrol tank with scotch and get into the car using the key. Turn on the engine, leave it running and cross into the Dark World.

Enter the spaceship and use the gloves on the lever to the right of the console. This starts the launch sequence so get out of there sharpish.

Once the craft has taken off you will find yourself back in front of the mirror in the real world. Smash the mirror with the hammer and you have completed the game.



Mike spends a lot of his time here, usually digging people



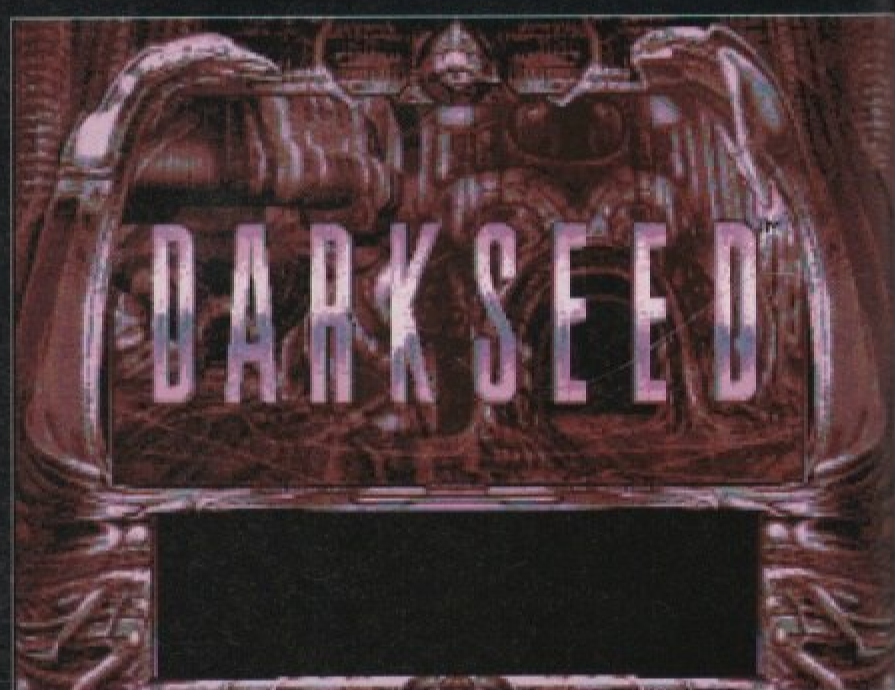
Mike get arrested for graverobbing – not surprising really



Delbert takes a well deserved swig of scotch



The keeper of the scrolls, strange, helpful, and unnervingly similar to the librarian



I think this is where we came in...

Going loopy with arrays

HiSoft BASIC PART 4

We return to recursive HiSoft Basic oriented instruction in Paul Overaa's continuing tutorial series

Loops – sections of code which are repeated until some exit condition is satisfied – are extremely common in computer programs.

HiSoft Basic provides a number of loop-related statements but the particular one used this month is the For/Next loop because it goes hand in hand with the use of a multi-container type of Basic variable known as the array.

The variables we've talked about in the series so far have all stored single values. It is often useful however to be able to work with whole sets of related values.

Suppose for example that we wanted to use collections of x and y variables to hold the x and y axis components of three points on a graph. One approach would be to name the variables as x0, y0, x1, y1, x2 and y2.

If, for example, we then wanted to initialise each x item to a value of 20, we could do it like this:

```
x0=20
x1=20
x2=20
```

Three values are easy enough to code but try this approach with 100 such statements and you'll realise that there must be a better way of handling these situations.

What is needed is a way of declaring collections of items in a way that allows us to uniquely identify an item by virtue of its position, because in that case we could write loops like:

```
FOR i=0 to n
do something with the i'th x item
    NEXT i
```

This need was solved many years ago by developing the idea of an indexed or subscripted variable. With HiSoft Basic, as with most high-level languages, these entities are called arrays and each item in the array is known as an element.

An array then is a collection of objects of the same type arranged in such a way that we can access any element of the array by specifying its index position.

Array names follow the same rules as those for ordinary variables but arrays which contain more than ten elements need to be pre-declared using Basic's DIM statement.

To dimension a string array called x$() and set all of the elements from x$(0) to x$(99) to the string "Empty" we would therefore use this code.

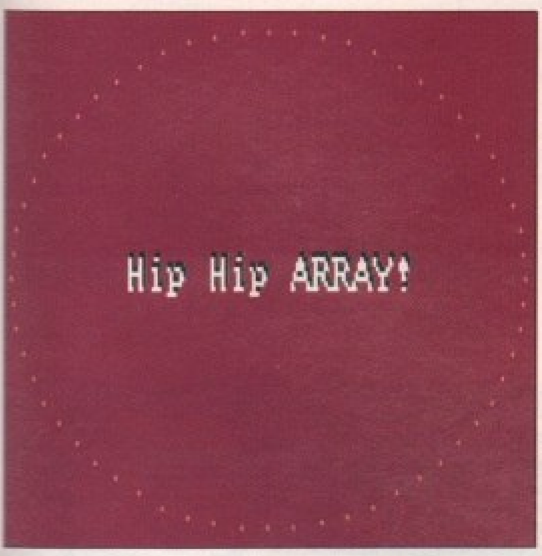
```
DIM x$(99)
FOR i=0 to 99
x$(i)="Empty"
NEXT i
```

Similarly to print the contents of the above array we could use this loop:

```
FOR i=0 to 99
PRINT x$(i)
NEXT i
```

I've used subscripts that start from zero so the string array shown above contains one hundred elements, ie x$(0) up to x$(99). Some people find working with zero indices awkward and it is worth mentioning that HiSoft Basic provides an Option Base statement which allows the programmer to force array index values to always start from one.

Multi-dimensional arrays or tables, eg x$(20,20) are easily set up and with HiSoft Basic it is even possible to use arrays which are local to subprograms. Another powerful HiSoft extension is the ability to redimension an array without loosing existing data.



A loop allows the 60 second-hand positions to be drawn with just three lines of Basic!

You do not incidentally have to use simple array subscripts. Expressions can be used and the clock program that I provided last month is a good example.

The second-hand had to be able to be displayed in any one of 60 positions and since a complete sweep of a circular clock face involves 360 degrees it was not hard to figure out that each new second hand position was six degrees further on from the last.

By using a bit of high school trigonometry I was able to pre-calculate the locations on the circumference representing those second-hand positions. Here's the x() and y() array-based loop which did the trick:

```
FOR i=-90 to 270 STEP 6
x((i+90)/6)=2*RADIUS*COS(i*DEGREES_TO_RADS)
y((i+90)/6)=2*RADIUS*SIN(i*DEGREES_TO_RADS)
NEXT i
```

A bit frightening I know, but if you work out the (i+90)/6 expressions using steps of six within the -90 to 270 degree loop range you'll see that they just correspond to the numbers 0, 1, 2, 3, 4... 60.

In other words, the right-hand side terms provide a way of specifying the x() and y() array subscripts whilst the left-hand-side expressions produce the second-hand position co-ordinates which get stored in the array.

The result is that for any value of i from 0 to 60 the array elements x(i) and y(i) end up holding the x/y co-ordinate data for the outer-most point of the i'th second-hand position.

It is because I pre-calculated these second-hand circle point values that I was able to set up the initial clock display by using a loop which plotted all 60 second-hand positions using Basic's Pset instruction. The loop added the x() and y() co-ordinates for each second hand position to an arbitrary:

```
FOR i=0 to 60' ie for each second
PSET(X_ORIGIN+x(i),Y_ORIGIN+y(i))
NEXT i
```

The same pre-calculated x() and y() data was of course also used in the routine that updated the position of the second-hand!

Trying to write a similar program without using array-based code would be a nightmare and the moral of this story is simple: Loop-based array constructs are well worth learning about because, one you are used to the underlying ideas, they can make your life as a programmer significantly easier!

● *Next month we will be looking at the art of using control structures*

Know your commands

Command: DIM
Syntax: DIM [SHARED] variable [(subscripts...)]
[,variable [subscripts...]]...

Purpose: Defines the maximum values for array variable subscripts and reserves the appropriate storage. The minimum value for each subscript may be set using the Option Base statement. The DIM SHARED form is used to declare arrays and ordinary variables that can be accessed from within sub-programs without the need for a shared statement in each sub program.

Command: FOR... NEXT
Syntax: FOR counter_variable = start TO end [STEP increment] NEXT counter_variable

Purpose: The counter_variable is set to the specified start value and the statements within the FOR/NEXT loop executed. The counter variable is then incremented by one (or by the value specified by a STEP value) and the result compared to the end value.

If the counter variable does not exceed the end value, the loop code is repeated.

Command: OPTION BASE
Syntax: OPTION BASE [0 | 1]

Purpose: Defines the lowest subscript value to be used with arrays.

Command: PSET
Syntax: PSET [STEP] (x_position, y_position), [colour]

Purpose: This statement plots a pixel of a given colour in the current window at the given x_position and y_position. Drawing is relative to the top left of the window unless the STEP keyword is used.

BACK ISSUES

Missed some of the first three parts of Paul Overaa's excellent HiSoft Basic tutorial? Worry not, you can retrieve the situation by ordering the relevant copies from our Back Issues Department.

AMIGA insight

Expert views on the latest applications

Do you know that feeling you get once in a while, when you see a really excellent piece of software, or for that matter any really well thought out and effective product?

You know the feeling I'm talking about – it is like a big grin inside you, a reassuring feeling that there are still people out there who love what they do. Someone, somewhere, has actually taken the trouble not to dish out just any old slop.

For me these moments reaffirm the fun philosophy of computing, so often obscured by today's commercial considerations.

Now when programs like these are shareware, with registration costs so low that they are practically free, I think we should all really take notice and support them. After all, it doesn't take only expensive packages to draw our attention any more, does it? At least, I hope not.

Yes, the package I am talking about is really that good. It is a cel animation engine called Xl from Software on a Shoestring (it really is!) in the USA, and costs only $30.

If you do any animation at all, and it's been some time since you experienced the feeling we mentioned above, this package could well make your day...

For those who haven't come across it, cel animation is the process by which drawings are produced on successive layers of transparent material (cels), so that the eye can see the whole sequence of movements at a glance.

Xl simulates the transparent cels by using successive shades of grey, so that the more recent frames are darker, and the older ones are paler.

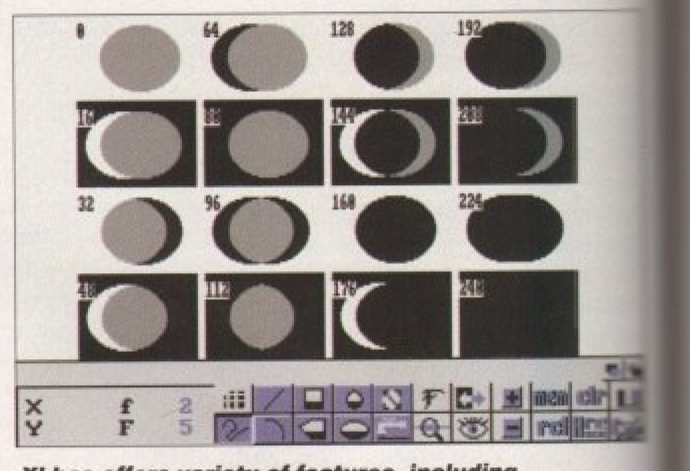
This is a fairly standard technique and is used in many animation programs, including Disney Animation Studio. It should be obvious that the animated cels are in black and white (line drawing) only; if you want to paint them in subsequently, you must import them into a paint package.

When a scripting language is added to any drawing program, it automatically adds a new dimension to it, giving it some of the qualities of a mini-CAD package.

This kind of automating power is invaluable where a lot of precision is necessary, and would come into its own when animating such things as machines, moving components and so on.

All this is usable directly from ARexx. In fact, you could create a whole animation without as much as touching your mouse or graphics tablet, simply by programming it.

By using the programming side of ARexx for calculations, a lot of possibilities are opened: With a bit of work you could accomplish goal-directed animation, ie repre-



Xl has offers variety of features, including control of the blitter (minterms)

senting the movement of linked or articulated objects.

Alternatively you could take 3D (x,y,z) co-ordinates, perhaps from a modelling program, and convert them to 2D screen representations, either isometric, or even perspective. Program the change needed in each cel, and let your machine do the animation for you.

The ARexx interface is very simple. It is invoked with a mouse click which prompts you for your pre-written program. You can also enter single line commands directly at the requester. Naturally, Xl can be linked to any other ARexx compatible program.

The program proved itself extremely quick to use and get on with. There are intelligent keyboard short-cuts for everything – a feature often neglected on the Amiga.

The following snippet of code shows one approach to creating an animation sequence, making use of the turtle:

```
angle = 270
pen = 0
x = 320 ; y = 100
TURTLE x y angle pen
do i = 1 to 20
 phase = i // 5
 GOTO i
 call draw_pict(phase)
 call new_pos(i)
end
```

The picture is drawn every time the draw_pict() function is



Interprocess Communications

Many Amiga users are drawn to learning ARexx, so as to get the most out of multitasking, but a few shy away from its "minority language" image. No point in putting a lot of investment into something that won't be very useful in the future.

Don't worry, if you learn ARexx you probably won't have to learn any other macro language, at least not on the Amiga. All major software packages are now using ARexx as their automation language. The ARexx core is the same regardless of which software uses it.

ARexx is also simple enough to be picked up very quickly if you already know another language, like Basic, and not too difficult even if you know no other programming language.

The most interesting item of news that I got this month, however, is that IBM will be releasing something called VISUAL REXX with the latest version of its new OS/2 2.0 operating system. This appears to be REXX with a graphic interface to OS/2.

Now REXX, (the language on which ARexx is based), has been around for some time on large computers, and it is even available under MS-DOS. There it enjoys a small following of users who like its excellent parsing facilities, and use it as a utility language.

Of course, you get nothing like the multitasking control that ARexx gives, but since PCs have never had true multitasking in the first place, this has been irrelevant.

With the appearance of modern multitasking systems like OS/2 2.0 and Microsoft's Windows NT, it won't take long for someone to realise that all these tasks could be usefully linked. All they have to do is look at the Amiga.

called. It can contain a mix of turtle and conventional graphics commands. The new_pos() function then moves our turtle to a new position and heading. Basically it would describe a path of movement.

The phase variable is used if the object to be drawn is not exactly the same in each frame. For instance, legs may be walking, gears may be turning, and so on. In the accompanying illustration, you may notice that the little animal is wagging its tail as it is turning.

The more I played with this demo the more I liked it. It is as solid, versatile and - very importantly - bug free, as any commercial offering. Above all it has a great feel of practical usability. It is small enough to run easily on a 1Mb machine, and would probably even run on an old unexpanded Amiga. First class work, Software on a Shoestring!

I found myself wondering what language it was programmed in. By a chance bit of snooping, I discovered that it is written with the popular American package JForth, which does not show itself much on this side of the waters.

The only real fault that I could find with this program is that it only comes in the US NTSC mode. This means that you have a maximum of 400 vertical pixels, rather than 512. Perhaps if there is enough interest the author will recompile a full-size European PAL version.

Yes, I certainly recommend you check this product out. In my opinion it would still be fair value at three times the price. I have written to the author to confirm the address, and I will let you know in the next issue.

As always, I suggest you contact the author first before sending off any money, just to make sure that you are not posting to an invalid destination. The demo (save-disabled) version of Xl can be found on Fred Fish disk number 516, and the address is Software on a Shoestring, 1116 Road 68, Pasco, WA 99301



Xl stands for excellence

Alex Gian finds an ARexx package that reaffirms his faith in computers, dedication, shareware and life in general!

Take a trip with turtle power

One of the most well thought-out features of Xl is the inclusion of so-called "turtle graphics" as found in the educational language, LOGO.

Turtle graphics is a way of drawing by specifying a direction and a heading from your current position on the screen, rather than using the traditional (x,y) co-ordinate system.

The name is historically derived from a little pen-carrying mechanical buggy, or turtle, which was used to create drawings in the early versions of LOGO. On-screen the "turtle" is only notional - a pixel that moves and draws as you instruct it.

The program control flow is provided by ARexx. Xl provides only the graphics commands, such as FW x (forward x pixels), RT y (turn right y degrees), PENUP, PENDOWN, SETPOS x y (set the position of the turtle), GETH (get the direction the turtle is heading) and so on.

The conventional graphics commands like BOX, CIRCLE, POLYGON and the like can be freely mixed with turtle commands.

For instance, to draw a square in LOGO you go forward and turn right a total of four times. This is what it looks like in Xl, using ARexx.

```
x = 10
do for 4
FW x ; RT 90
end
```

For the purposes of this article I have adopted the convention of having all the ARexx commands in lowercase, and all the Xl commands in capitals. This is not necessary, it is only done for the sake of readability.

Here's another example, that gets and stores the current turtle position and heading – useful if we want to return to our original position.

```
/* We will need results from Xl */
options results
GETH
turtle_heading = result
GETPOS
/* Result is string with 2 nums */
/* Extract co-ordinates: */
parse var result turtle_xpos turtle_ypos
```

Just like LOGO, complete drawings can be described by a function or procedure, and can be called whenever needed.

The importance of the turtle graphics is that they can describe a drawing fully, independently of the direction in which it is facing. This is a very elegant solution and spares us the effort of recalculating the co-ordinates.

The turtle graphics built into Xl, together with ARexx, combine to form an interesting version of LOGO. I can easily see it being used to teach kids; the animation bonus will certainly liven up any class.

Regular LOGO does not have anything like the facilities or speed required to display animations, so Xl provides a really good - perhaps a better, alternative. Ideas can be visualised very quickly, and errors are spotted instantly and can be corrected interactively. This is a vital part of the learning process.

Believe me, this product is full of schoolroom potential. It has that special ability to capture the imagination instantly, and the quick and visible results are great for motivation.

Whether it will actually ever be used in this way is another matter. Call me a cynic if you will, but I suspect it won't. Oh well, at least the smart hobbyists and keen amateurs will benefit...



Double vision

Paul Austin plugs in two new arrivals which are designed to suit both the composite output of the amateur and the semi-pro efforts of the S-VHS brigade

With the Amiga now well established as the premier video engine, a genlock has become an essential to many home studios. As a result, two new units from Electronic Design are hot news – especially as they seem to be affordable while retaining quality results. You can choose from the cheaper composite version or the pricier Y/C and S–VHS unit

As you can see from the photography, they aren't exactly contenders for the Miss Genlock awards, but if you can overlook the less than spectacular aesthetics and cast the Volvo–esque styling aside the interior hides the odd pleasant surprise.

Although not pretty, both units certainly score well on the functionality side with the sort of robust design and build quality which epitomises German attention to detail.

Although each serves a different sector of the market the basic design is all but identical, with the only difference appearing on the rear of the units.

As you'd expect from an S–VHS genlock, both Y/C in and out are there, plus the added attraction of their composite alter egos. A particularly pleasant aspect of the Y/C option are the standard S–VHS mini DINs as opposed to the split male phonos sometimes offered on S–VHS gear – a form of connection which all too often needs additional cabling to assimilate the hardware into certain setups.

Although pretty self explanatory – courtesy of the photography – there's very little physical difference between the two. As a result there's not much point in dealing with their basic physiology separately.

On the front of the near bomb–proof casing sits the ubiquitous control panel complete with a fairly standard array of control knobs plus a single invert switch ready to generate a keyhole effect – colour zero as foreground, video as the background – when necessary.

Of course this can be toggled to the standard setting of video as a replacement for colour zero as required. Alongside the aforementioned flick switch await a total of no less than five knobs, each controlling their own element of the final output.

The first three deal specifically with the overall image quality by allowing adjustment of colour, contrast and brightness respectively.

The penultimate knob adds the essential fade allowing control over the introduction and fading of the overlaid Amiga graphics while the fifth and final defines the degree of superimpose applied to the video signal.

All pretty standard stuff, however it must be said that the knobs themselves do leave a bit to be desired. Although as sturdy as they come, they feel a bit slack which in practice means that silky smooth fades can become a little jerky.

There's yet another irritating aspect to the control panel, namely available space. Being a fairly sizeable chap, I like many others suffer from unfeasibly big mitts and as a result actually turning the knobs under the cramped conditions can cause real problems on both units.

Moving to the rear of the units things are again pretty standard with the necessary I/O options mentioned earlier plus the essential RGB Thru enabling connection of a monitor.

Although a fairly standard feature on most modern genlocks, its importance can't be stressed enough. If you're toying with the idea of a cheaper genlock, think very carefully if this particular feature isn't implemented, as an apparent initial saving can prove costly in the long term.

In addition to I/O and the thru–port, both units also offer an optional 12v power input plus mono–only Video Out. When connected to the composite input on a monitor you can then access a rough and ready version of the output heading for the VCR – useful if you can't be bothered connecting a TV to the target recorder.

Although not exactly perfect in certain areas, it must be said that the output quality of both units is on a par with anything in their respective price ranges – although the composite unit is uncomfortably close to the upper limit of the composite price bracket.

Given the choice, and of course the need, the S–VHS unit has to be the more attractive of the two, primarily because unlike its composite counterpart it comes in at the cheaper end of the market in respect to units such as the Hama 290, while offering enhanced flexibility when compared to GVP's G–Lock.

Composite £349.95 ● Y/C & S-VHS £519.95
Available from Micro-PACE on 0753 551888

Get connected

In the classic tradition of almost every genlock on the market, both Electronic Design models connect up to RGB Out on the Amiga by a suitably lengthy cable while the actual power is supplied via a joystick connector.

Although seemingly the ideal answer to the power problem, the aforesaid connector can be tricky when connected to an A1500/A2000.

Admittedly the connection can be made but it's a pretty close call and if constant removal and reconnection is required the wear and tear could cause problems in time.



Each IDCMP flag in the NewWindow data structure represents an event that a program could be informed about, by a message in the Window's UserPort.

The polling loop in the demo program waits for a RAWKEY, MOUSEBUTTONS, WINDOWCLOSE or INTUITICKS event to occur, stores the class and code in its own variables and releases the memory for the next incoming message.

For more details on Intuition Window event handling, see last month's column.

Think of a low resolution screen as a page with 256 narrow lines, and 320 dots (pixels) on each line. Each pixel can be clear (logical colour 0) or set in logical colour 1. Each logical colour is allocated a physical colour, made up of differing proportions of red, green and blue. If more than one page (or bitplane) is used, more logical colours are available.

The Amiga graphics library commands can draw lines and shapes, paint large areas, or write on the screen.

Last month the demonstration program used graphics library commands, WritePixel() to change the colour of a screen pixel, and SetRast() to fill the whole window with the given logical colour. Both commands used the address of the Window's RastPort which can be obtained from the Window structure.

The RastPort is a structure containing all the Window's options for drawing shapes or producing letters on the screen. The full structure, with any flags used, is found in the Amiga include header file include/graphics/rastport.h. Some of the RastPort's structure members can be changed directly, others are usually changed using Graphics Library routines.

The routine SetAPen() can be used to change the foreground pen, SetDrMd() can be used to change the way the foreground pen is used, relative to the background.

The Draw() command will draw a line between two given sets of co-ordinates, and the RectFill() command will fill a given rectangle in the current foreground colour.

Note that if at any time an attempt is made to colour a pixel that is not on the screen, the software will not trap the error, other memory is overwritten, and the results unpredictable.

The Move() command will move the graphics cursor to specific pixel on the screen. The Text() routine can be used to display a given string of Ascii characters, from a starting point at the graphics cursor. The cursor's x (or horizontal) position gives the left-hand edge, and the y (or vertical) position the baseline of the first letter. The baseline is the lowest position of each letter, ignoring its descender (imagine the text written on lined paper, for the position of the letters relative to the baseline).

The text written by the demo program uses the default font, or set of letter shapes. More exotic lettering can be created by loading details from disk – this topic will be covered in a later issue of *Amiga Computing*.

The command SetRGB4() changes a logical screen colour to new (improved?) red, green and blue values. The command needs the screen's ViewPort address which can be obtained from the Screen structure, or from an Amiga library routine. The screen can consist of several bitplanes, the information being held in consecutive areas of memory. Screen memory is allocated with the AllocRaster() command.



Picture frames

Margaret Stanger explains how to get graphics and text into Intuition windows within C, and a sliding tile puzzle is explored and explained

The addresses of these bitplanes, and details of their height, width, and depth (or number of planes) is held in a BitMap structure – each RastPort has a pointer to a BitMap.

A Window can be allocated a default BitMap, or a custom BitMap can be defined, using the InitBitMap() command, and attached to the NewWindow structure before the Window is opened.

The demo program Window has its own BitMap defined, but the address could be obtained from the RastPort structure member.

In addition to the screen memory, other bitplanes can be allocated and BitMaps initialised. Pictures can be copied from one BitMap to another using the BltBitMap() command. BltBitMap(SBMap,sourcex,sourcey,DBMap,dx,dy,width,height,192,planes,0) is used to copy a chunk from rectangle from SBMap to DBMap directly.

The demo program initialises three bitmaps, one to hold a copy of the screen, PicBitMap, one for display, ScreenBitMap, and one to keep a copy of any rectangles being moved about.

BltBitMap() is used both to save a copy of the whole screen, and to slide small blocks about.

On the CoverDisk...

The support disk contains the program source code listing (block.c) and the object code (block). The source code includes the file (block.h): its own header file containing global variables, definitions and data structures.

This header file includes, in its turn, any Amiga header files needed for Intuition window and screen structures and definitions used in the program source.

When the object program (block) is run, the program opens the Intuition and Graphics libraries, and opens a low resolution custom screen. A window called the main window will open, which recognises four classes of events.

When a mouse button or key is pressed, the event will be marked by a message on the screen in the current foreground colour. When the Escape key is pressed, or the window closed, the program closes the screen, and exits.

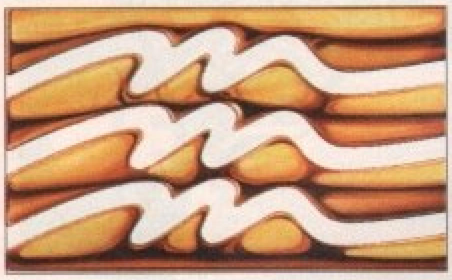
The fourth event occurs after the elapse of one-third of a second, and the program draws a line somewhere on the screen (just for something to do).

If no key or button has been pressed for 30 seconds, the program starts to amuse itself with a pretentious (bordering on silly) screen saver.

The screen display is turned into a six by five sliding block puzzle, and the blocks start to move about. As soon as a key or mouse button is pressed, the original screen contents are restored and the main program continues as if nothing has happened.

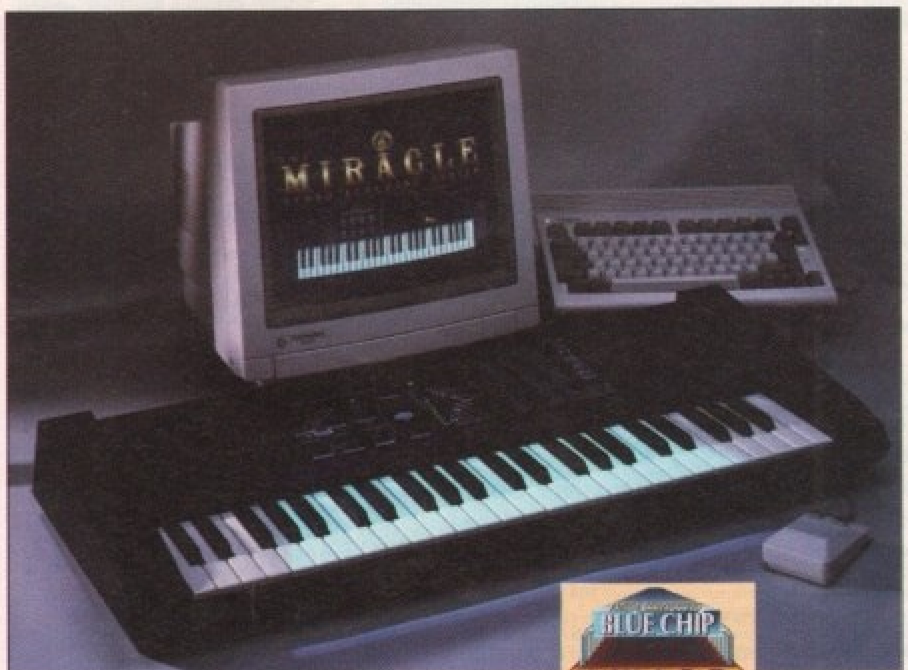
PRIZES WORTH £750

More Miracles!



THE MIRACLE PIANO TEACHING SYSTEM

30 sets of Song Collections for the Miracle keyboard to be won



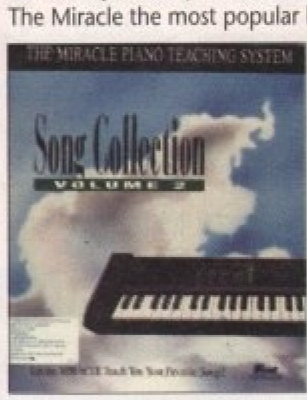
In our March issue we gave away ten fabulous Miracle keyboard tutors worth a whopping £3,000. And now we follow that up by offering all Miracle Keyboard enthusiasts the chance to win one of 30 sets of Song Collections you can play along to, adding to your enjoyment and improving your skill.

Each collection offers 40 great songs specially chosen to provide a wide variety of music styles, including Pop, Rock & Roll, Country, and Rhythm & Blues. Just pick the tune, and in no time you'll be playing it like a pro! Each song is fully arranged so that your performance has a lively accompaniment. All the features that make The Miracle the most popular keyboard learning method available are fully functional when you use the songs in these collections.

And, best of all, each song is arranged for two levels of playing ability, Novice and Expert.

So not only do you enjoy the benefits of the world's most exciting piano teaching system, with The Miracle Song Collections you get an educational jukebox with 40 more ways to playing to learn, instead of just learning to play!





To enter simply circle your answers to the two questions, complete the entry form and post it to Amiga Computing June Song Comp, Europress Direct, PO Box 2, Ellesmere Port L65 3EA

1. How many songs are there in each collection?

a. 15

b. 25

c. 40

2. How many levels of playing ability are catered for?

a. 0

b. 1

c. 2

Name____________________

Address____________________

____

Postcode__________ Daytime phone__________

☐ Tick this box if you do not wish to receive promotional material from other companies

The Miracle keyboard winners...

Here are the ten lucky people soon to be the proud owners of their own Blue Chip Award-winning Miracle keyboard tutor from Mindscape:

Mrs L Chawner of Manchester, A Ross of Swindon, A D Caldwell of Kent, D J G Harvey of Northampton, S Dacre of Wolverhampton, J P Bennet of Cheshire, D Booth of Kent, R Roberts of Clwyd, P Selwood of Warrington and N M Parker of Blackburn.

Just a pipe dream?

The Dream GMX-1 is one of the cheapest multi-timbral sound modules on the market – but does it live up to its name? Vic Lennard has his reservations...

Most General Midi (GM) sound modules sport the Roland name and GS logo with the latter signifying that the module conforms to Roland's superset of General Midi.

While both Yamaha and Korg have released GM products (TG100 and 03R/W respectively), no other manufacturer has made any movements in this direction. From looking at the front panel of the GMX-1, you'd be forgiven for thinking that this is the exception, but the GM logo is misplaced as you'll see later.

Designed and built in France by Dream, the control side of the GMX-1 couldn't be much simpler with only three items on the front panel – on/off switch, volume slider and headphone socket.

The mapping of the internal sounds conforms to the GM Sound Set which means that the basic 128 timbres are the same as for any other GM module and are called up by the relevant Midi Program Change message from a synth keyboard or sequencer.

Also included are various drumkits and sound effects; in effect, Dream have looked closely at Roland's Sound Canvas and created an identical product in terms of architecture including the mistake Roland made with Bank Select messages which precludes most sequencers from easily accessing tones beyond the basic 128.

The comparison ends the moment you hear the sounds. While all of the Sound Canvas tones are based on good quality samples, the GMX-1 uses a mixture of samples and digital synthesis.

This is fine, but although Dream state that these samples are of 16-bit quality, the graininess and digital noise on the tail end of many sounds shows that the resolution is only one factor.

The unsatisfactory tonal character may be due to a low sampling rate, poor quality analogue to digital conversion or some other factor, but in six years of reviewing sound modules I cannot recall one whose sound quality was inferior to the GMX-1.

Perhaps this is a case of getting what you pay for – to keep the price down, Dream have left out the Chorus and Reverb that makes many of the Sound Canvas tones what they are.

For computers other than the ST, the rear panel includes an RS-232 connector to provide a direct computer link without the need for a Midi interface, much in the same manner as Yamaha's TG100. A stereo pair of phonos for the audio outputs and the external PSU socket complete the rear panel.

Is the GMX-1 a GM module? Not really. While it conforms to the Sound Set, it only has 16-voice polyphony; any GM sound module must support a minimum of 16 voices. However, the issue is clouded by the fact that each voice can by used for either a single instrument (such as piano, strings and so on) or three percussion sounds. So the polyphony depends on the content of the music – for instance, you might have 14 instrument voices and 6 drum sounds but you cannot guarantee 24 voices. Whichever way you view it, the GMX-1 does not conform to GM in this area.

Politics aside, comparing playback of a Midi File on the GMX-1 and a Sound Canvas shows that Dream appear to have incorrectly set the initial levels of the 128 basic sounds – the mix balance is poor. Additionally, long sounds tend to be cut off due to the lack of sufficient polyphony. Inability to edit sounds, no effects, insufficient polyphony, and poor sound quality...

If you're a games player who wants to improve on the innate quality of the your Amiga and who owns games that support playback on a GM module, then the GMX-1 might be worthy of consideration. If you're after a multi-timbral sound module that will help you to create music, you'll probably want to look elsewhere – possibly at Roland's SC-7, a cut-down Sound Canvas for £259.



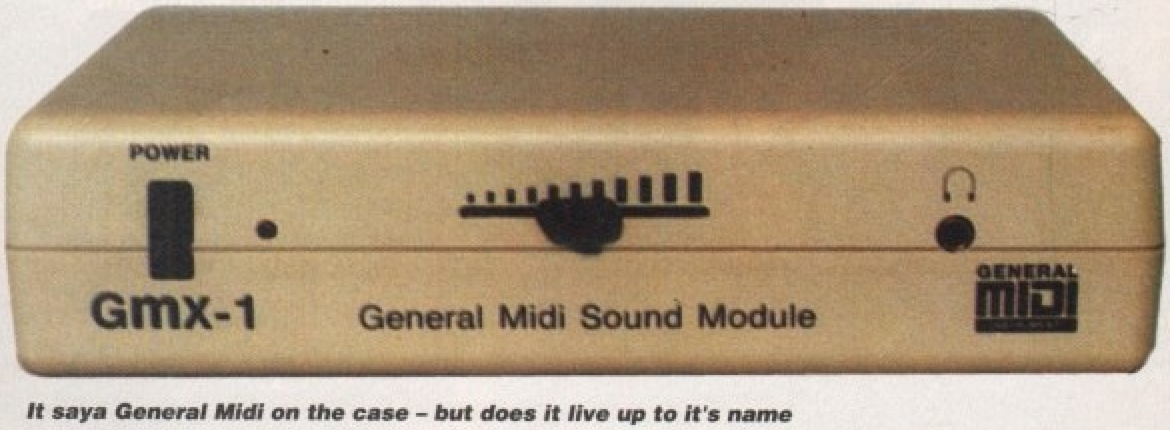
Dream GMX-1 ● Zone Distribution
071-738 5444 ● £269

What is General Midi?

A General Midi (GM) module has to conform to a specific set of Midi functions. For instance, all GM modules must be 16-part multi-timbral and play back key-based drums on Midi channel 10 according to the GM Percussion Map.

They have to have a minimum of 24 simultaneously available voices and 128 presets, each assigned to the Midi Program Change number in the GM Sound Set. Finally, they must recognise certain Midi Control Changes including Modulation, Volume, Pan, Expression and Sustain Pedal along with Channel Aftertouch and Pitch Bend.

Consequently, using any GM sound module should mean compatibility – no notes cutting out due to different polyphonies, no incorrectly selected sounds via Midi Program Changes, no incoherent drums due to the wrong mapping, and so on.



It saya General Midi on the case – but does it live up to it's name

Journey into the Knightmare!

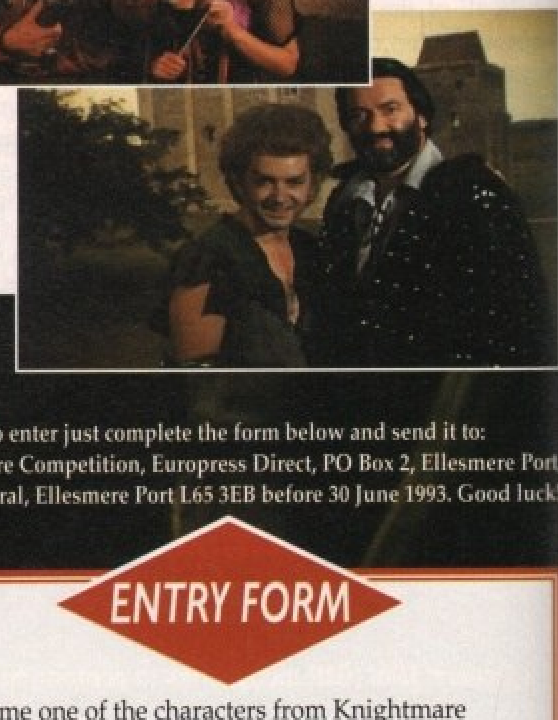
PRIZES WORTH £££s!

If you've read this month's cover feature you'll know all about Knightmare, the virtual reality adventure game show that uses Amiga-generated graphics.

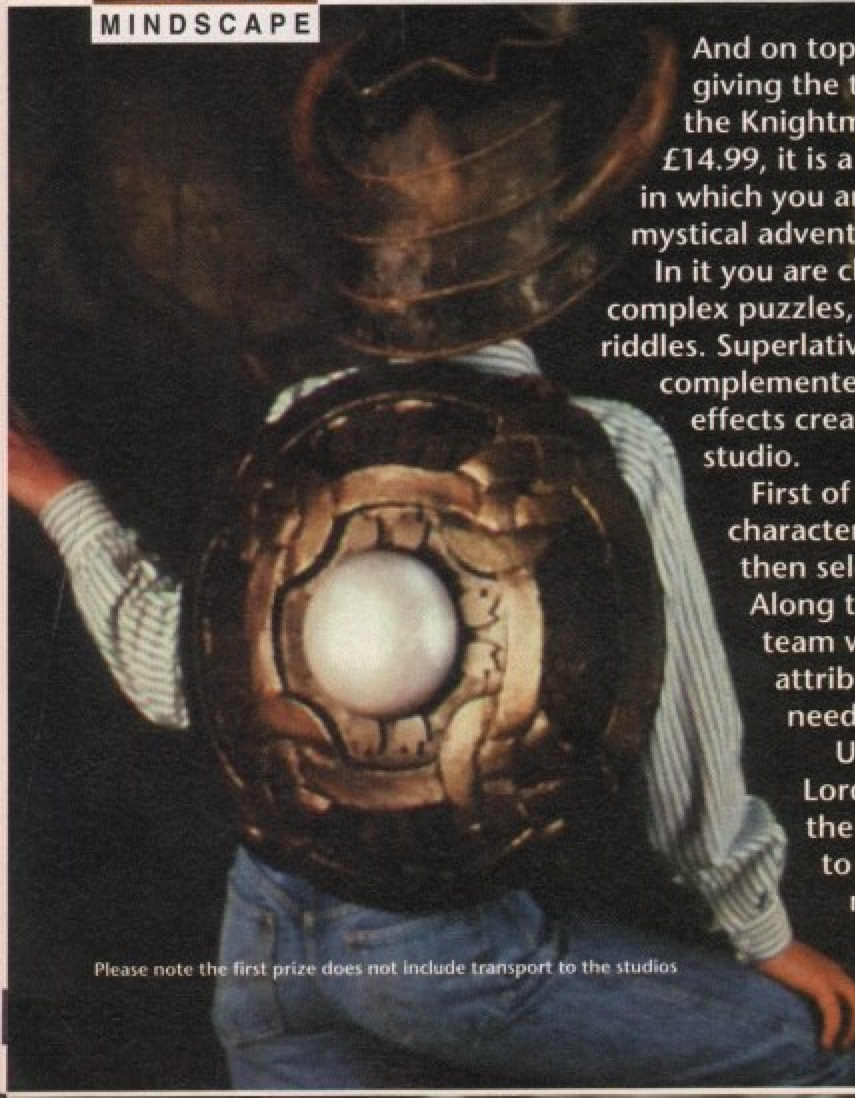
Now *Amiga Computing* and **Broadsword Television Productions** have dreamed up a competition giving the winner a day at Broadsword's television studio in Norwich.

He or she will be taken on a guided tour as production proceeds and see how an Amiga is used to generate the graphics – as well as receiving a bag of Knightmare goodies including a sweatshirt, mug, badges and puzzles.





MINDSCAPE



And on top of that, Mindscape are giving the ten runners-up a copy of the Knightmare game. Worth £14.99, it is a re-creation of the series in which you are in control of the mystical adventure.

In it you are challenged to solve complex puzzles, logic problems and riddles. Superlative graphics are complemented throughout by sound effects created in a full TV audio studio.

First of all you choose the characters for your team, and then select your first quest. Along the way you arm your team with the weapons and attributes you think they will need.

Ultimately you'll meet Lord Fear and his lieutenant, the Frightknight, and it's up to you whether or not the meeting is terminal...

Please note the first prize does not include transport to the studios

To enter just complete the form below and send it to: Knightmare Competition, Europress Direct, PO Box 2, Ellesmere Port, South Wirral, Ellesmere Port L65 3EB before 30 June 1993. Good luck!

ENTRY FORM

1. Name one of the characters from Knightmare
2. Name one other virtual reality game show produced by Broadsword (the Knightmare feature will help you)

Answer 1...

Answer 2...

Name...

....

Address...

Postcode...

Daytime phone...

☐ Tick this box if you do not wish to receive promotional material from other companies

BBS that goes with a bang

Phil South looks out over the frozen wastes of the world's computer networks and says "One day, all this could be yours"



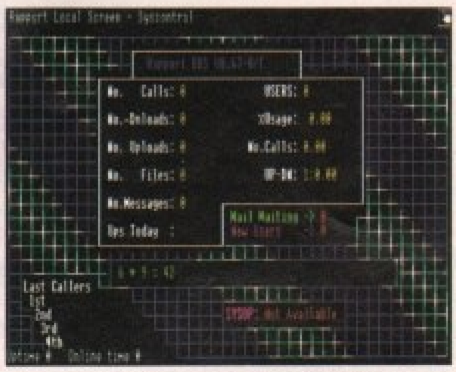
If there's one thing which is more fun than logging on to other BBSs and using them it's running your own system. Setting up your own BBS need not be expensive, and just think how much money you'll save having people dial up your BBS rather than calling theirs.

If you're into setting up your own BBS, try the Rapport system (Big Bang Enterprises, £50), which is one of the fastest and cheapest ways around to end up with a fully-featured colourful ANSI BBS from scratch in an afternoon.

Few things are as much fun as the Big Bang Burger Bar, the BBS running under the Rapport system. It's fun value is due in no small part to the slick and colourful software that the system runs on.

It comes on a single disk and is easy to install on your system. Be warned if you want to set up a BBS of your own you will need a hard disk.

The software is a snip at £50, and upgrades are in the offing like the facility to take feeds for Internet, Usenet and FidoNet. Log on to the Big Bang Burger Bar for more information and a live demo. Users of this BBS have been unwittingly beta testing the software ever since it's been on-line, and very good software it is.



Accessing Rapport's local screen

The name comes from the Hitch-hiker's Guide To The Galaxy, in case you hadn't guessed, and the Sysops are Slartibartfast and Gargravarr. The board is liberally seasoned with references to the radio series and books, and recognising the quotes and all that is almost the most entertaining thing about it.

There is even The Guide, an on-line magazine for BBS travellers to get their bearings in the Galaxy. On-line games, files to up and download, it's all there, and all in professional machine code. Fast and stable.

The system practically installs itself and even lets you log onto your own board from the computer it's running on, meaning you can test out the system without having to log on using a phone.

If there was just one thing I'd change I'd say the documentation isn't comprehensive enough, but apparently this is all due to change. Rapport is very good stuff at the price but personally I think they should have made it £42!

Rapport is available for £50 incl p&p from: Big Bang Enterprises, 188 Kenmore Avenue, Kenton, Harrow HA3 8PR. BBS on 081-909-2064 (24 hours) 8N1.

Good BBS guide

01 For Amiga
BBS 071-377 1358
(24 hours)
Friendly Amiga board with CD ROM of Fred Fish disks.

Cheam Amiga
BBS 081-644 8714
(24 hours)
Fidonet mail echoes and very good up to date file areas. The system runs using DLG Pro.

CliffNet
BBS 0642 467324
(24 hours)
Fidonet mail areas also on-line games, Drag Racing, BlackJack and Scrabble.

Essex Amiga
BBS 0277 23354
(24 hours)
FidoNet echo mail, and a lot of software. Run using TransAmiga BBS.

Test Drive
BBS 081-395 5096
(24 hours)
FidoNet mail echoes are here, plus on-line games like ANSI Warriors, Never Ending Story, Space Empire, plus many more.

Why error beep went wild

Something was driving me absolutely insane the other day, and I couldn't trace it. Complete screaming billy bonkers I was. And finally, finally, Gary Whiteley (video head and sometime contributor to this august tome) remembered he'd had the problem himself and sorted it out for me.

My system has been all over the place for so long. After years of installing and de-installing software I have for review my hard disks were fragged and running slow. What was needed was a complete re-format and re-install, something which I wasn't really looking forward to as you can imagine.

I installed Workbench 2.1 (hooray) and everything was deeply groovy. My error beep was changed for a jazzy guitar riff, and all was well with the world. Until I tried to use my modem and NComm, and everything went horribly wrong.

It was untraceable and intermittent. My copy of NComm went bananas sending data all over the shop, and uploads and downloads with MNP and ZModem were out of the question. Text repasted itself all over the screen randomly. I was not a happy camper. After finally fixing my system I had caused some terminal software problem. I reformatted the hard disks and checked all the library versions. I used SnoopDos to find out what was going wrong and it said there wasn't anything wrong.

I told all this to Gary Whiteley just before I blew my brains out with a .44 Magnum and he said don't do that, just turn off the CPU monitor on your Directory Opus. Say what?

Yes it's true. Turns out it's not so much either a bug in DOpus or NComm, more of a clash. If you use a modem, the CPU monitor on DOpus messes up the timing etc, which explains the intermittent nature of the problem.

I sometimes have DOpus iconified on my WB when I'm working, it's handier that way. And that was everything went crazy. I haven't seen v4 of DOpus as yet, but HiQ are rushing me one as we speak to try out this problem on the new rev. I'll let you know what happens.

True but strange, as Gaz would say.

Missed a great opportunity?

Are you using one of our recent CoverDisks and wish you'd taken up an offer that went with it? Well, here's another chance to make the most out of your free programs



Vidi Amiga 12

Only £69 – save £31

Digitiser, grab function and manual

This superb package offers...

1. The new improved version of the original award-winning digitiser, which enables you to load and capture images from live video and digitise your own to the quality demonstrated on the CoverDisk.
2. The grab function allowing existing Vidi Amiga 12 owners to upgrade to the fully functional v2 software.
3. The manual that clearly explains everything you will need to know.

Or you can buy the manual and grab function for only £9.95

Or you can simply buy the manual for only £4.95

Upgrade to PFM Plus for only £15.95

For this super price you can have all these improved features:

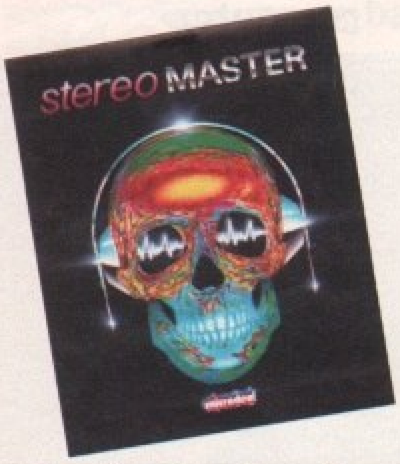
- Multiple accounts with auto-transfer
- Trend plotting graphs
- Increased budget handling
- Full printer report formatting
- Desktop calculator
- Extensive user-configurable options

● *PFM Plus uses Workbench windows, not GEM*



Buy the PFM manual for only £4.95

You can make the most of the PFM CoverDisk with this excellent manual, which will enable you to enjoy the program's more advanced money management features.



Stereo Master sound sampler cartridge and manual

If you've got March's Stereo Master CoverDisk, the Mastersound cartridge and accompanying manual will enable you to capture real life sounds from record, tape, CD or even a microphone with ease.

You can try out one of the Amiga's most popular home uses and save £25!

Only £15.95

HiSoft BASIC

This complete package includes an extensive 350-page ring-bound manual and the two disk set which gives you an extended 1Mb compiler/editor, plus many extra examples, libraries and more.

This special offer also includes a HiSoft BASIC 2 upgrade coupon, which ensures that when you buy the upgrade you will receive a special price and priority treatment.

Only £21.95

PFM and Stereo Master

Fill in this form and send it to Microdeal Ltd, PO Box 68, ST Austell PL25 4YB, or phone on 0726 68020

Please send me...

- [ ] PFM manual £4.95
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I wish to pay by...

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HiSoft BASIC

Fill in this form and send it to HiSoft, The Old School, Greenfield, Bedford MK45 5DE, or phone on 0525 718181, quoting ref no. ACHB1 / Q9

Please send me HiSoft BASIC 1 for £21.95

I wish to pay by...

- [ ] Cheque / postal order payable to HiSoft
- [ ] Credit card Expiry Date ___/___

Card No ____

Name ....

Address ....

....

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Pleased to meter

Phil South looks at on-screen meters and tosses in a few hints and tips about using sprites and bobs

I don't know about you, but I've always liked those horizontal meters you find in games or application programs which scroll across the screen smoothly to indicate the amount of a task which is completed.

Also in game programs you can have a bar reading of air in your tanks, ammo in your gun, or energy in your role-playing characters.

As well as being just a meter which goes up and stops at the end, you can do stuff to it to make it go up and down at will, simply by reversing the process with drawing in black ink.

I thought it would be a challenge to try and implement one of these in a short Amos routine, and here it is.

The first step is to title the program, which I wrote, using these words:

```
Rem ** AMOS Meter **
Rem ** 1993 Snout **
```

OK, substitute your own name if you want, I'm not proud, I'm no prima donna. Next we add all the usual guff to clean up the screen and make it ready to use:

```
Curs Off : Hide : Paper 0 : Cls 0
```

Turn off the cursor and the pointer, set the paper to black (colour 0) and clear the screen.

Next, by way of explanation of what's going on in this program, we put a title up there at the top of the screen:

```
Centre "-    Fill 'er up!    -"
```

Nothing fancy. We'll be overwriting this with other titles as the bar progresses across the screen. Next a bounding box to surround the bar to show roughly where it is in its path:

```
Ink 5 : Box 38,18 To 242,32
```

leaving a one-pixel gap around where the bar will be. Next we set the colour of the ink for the bar, in this case red:

```
Ink 4
```

Any plotted points will be red. Now we set up the initial plot point. This is the dot on-screen where the top left part bar will begin:

```
A=40 : B=20
```

Right that's all the setting up, so let's draw our bar. We do this using a pair of nested loops, one going from 0 to 200 the length of the bar, and one going from 0 to 10, the height of the bar.

The bar is drawn one dot at a time from 40,20 down ten dots, then we start again at 41,20 and draw it again. As we progress across the screen the dots all merge producing a solid bar:

```
For J=0 To 200
   If J=50 Then Bell : Centre "-   Quarter Full!    -"
   If J=100 Then Bell : Centre "-   Halfway there!   -"
   If J=150 Then Bell : Centre "-   Three Quarters!  -"
   For I=0 To 10
      Plot A,B+I
   Next I
   Inc A
   Wait 3
Next J
```



The finished meter in all its (ahem) glory

After 50 little lines the bell sounds and the message Quarter Full is printed over the title. At the halfway point, or 100 lines, the title reads half full. At the three quarter stage, 150 lines, the title reads Three Quarters. When the bar is finished we get a final bell and:

```
Centre "-
Bell
Wait Key
```

The program then waits to be terminated by pressing any key on the Amiga keyboard. This is a classic routine and one which I've used on almost every Basic interpreter I've ever encountered.

You can adapt this routine to do a vertical bar by simply changing the order of the loops and reversing the co-ordinates so the rather than drawing the bar from left to right you fill 'er up from the bottom to the top, or even right to left. You could even accompany the drawing with a little calculation to see how much of a thing is actually left. Also you can do a reverse drawing of the line in black, erasing it as something in your game runs out, like oxygen or time, or even allowing it to go up and down as you need it to.



The beauty of this routine is that it is totally independent of any other routines and will quite happily whiz the bar along at any speed. If unchecked by the WAIT 3 command you will see it all happens very quickly, so if you have some complex calculations to do at the same time you'll still be able to inc and dec the bar up and down and maintain a respectable speed.

Amos Pro heralds a new phase

Although Amos Pro is said by some to be 99 per cent bug free I figure that this means that in a 100k program only 1k of it is buggy.

In any event we are inexorably being drawn down the Amos Pro road, as the very final version of Amos Classic is 1.35, due out as update disks and files on your friendly neighbourhood BBS by the time you read this.

The Amos Pro Compiler is rumoured to be ready around now too, which finally makes Pro usable for more than just programming exercises.

Some see this as the end of an era, but I see it being the start of a new phase. I can foresee Amos use being polarised into two camps in the near future, with people using the Amos Classic program for serious program development and building their own extensions to make up for any shortfalls, like the Intuition and ARexx ideas I've heard about recently, and Amos Pro being the public's introduction to the sport, as it were.

What with PCOS only a few miles down the road now, I can see program support being stretched as a flood of new PC users come into the frame, so support will be more reliant upon the old Amos users and the Amos Club. In any event Amos Classic is dead. Long live Classic Amos.

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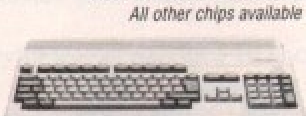
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Magic in the air

Ben Pointer waves his logical wand and brings the Gold Disk AutoSave Genie back from the dead

Most ProPage and ProDraw users will have played with them. Many will have scratched their heads and wondered what all the fuss is about. Some will adore them but will have got a bit hot under the collar after discovering that a few of them don't appear to work properly.

I fall into that last class of user, and the "broken" ProPage Genie that really upset me was AutoSave, the one that prompts you every so often to save your work.

Rather than wait for Gold Disk to fix it (fat chance!) I decided to have a go myself.

The first job was to find out exactly what the program was supposed to do, and this I did by "reading" the program. With the Commodore ARexx manual and the ProPage 3.0 Supplement Manual by my side I followed the logic of the program line by line, immediately discovering that the "AutoSave.pprx" program calls a second program named "PPageAutoSave.rexx".

This second program is the meat of the AutoSave Genie, the code that actually puts up the prompts and saves the file, and because the ARexx language is so English-like I very quickly worked out that the program puts up a file requester if the document is still untitled, otherwise it simply saves the file with the existing filename.

To work properly the program has to strip the actual name of the document away from the path. So, for instance, the string "Work:DTP/PPage/Docs/MyDoc" has to be turned into just "MyDoc".

By experimenting with the Genie I discovered that if the path and file name of the document was just "Device:Filename" or "Device:Directory/Filename" – "Work:MyDoc" or "Work:PPage/MyDoc" for example – then the Genie worked perfectly.

Bug located

But if there was more than one directory between the device and the filename, the "AutoSave?" prompt would come up after the first waiting period, but clicking Yes didn't save it and the prompt would never return.

Aha! I'd found the bug. It must be in the code that strips the filename away from the path.

Luckily this code was easy to find as it is a separate procedure called splitpath(). Little clue there in the procedure name. The first thing this procedure does is use the pos() command to look for the first occurrence of a backslash in the complete path and filename string.

If it finds one, it remembers where it is in the string in the spos variable. If there's no backslash it sets spos to zero, and goes to looks for a colon (in order to strip the filename away from the device name) and remembers the colon's position in the vpos variable.

If both variables end up being set to zero, it already has a filename without a path, so there's no splitting required, and the procedure sends the same string that was passed to it back to the main program.

Otherwise it uses the larger of the two numbers held in spos and vpos to strip the name away from the path.

The problem lied in the very first line of the procedure, which was looking for the first occurrence of a backslash in the path and filename string. If there was more than one directory, the routine passed on a filename that was headed by one or more directory names.

Thus, when the file came to be saved, the directories in that string didn't actually exist within the current directory, so AmigaDOS could not save the file as requested.

What the procedure needed to do was look for and remember the position of the last backslash in the string, and a quick flick through the ARexx manual revealed that there was a lastpos() command which did just this. I altered the code, rebooted and ran the AutoSave Genie. It didn't work.



I stared at the code on the screen. The logic was perfect right up to the actual substr() command that did the string splitting. This command first looked to see which of the variables, spos and vpos, held the largest value, added one to that and used that number as the starting position in the whole string from which to start stripping.

Ah. But would it? If spos is non-zero the code which looks for and assigns a value to vpos is never executed. And the max() command, which returns the largest value from a list of values, according to the ARexx manual, must be supplied with a list of values of the same type. If vpos was not being assigned a value it had no type, so the max() command was not executing properly.

I added a line to the start of the procedure that assigned a value of zero to vpos. If there was no backslash in the string then the code that looked for a colon would be executed and the value of vpos would be changed accordingly, or set again to zero if no colon was found.

If the code the sets vpos is not executed this means that spos is non-zero (a backslash has been found) so setting the value of vpos to zero at the start won't matter because spos will be a higher value than this anyway.

So now, when the max() command was executed vpos always had a numerical value, and therefore was of the same type of variable as spos, and so the command would work properly.

I tried again. It worked. And it works perfectly every time. Bliss! I now have an AutoSave feature in ProPage.

```
splitpath: procedure expose dname
do

    vpos = 0
    spos = lastpos('/', dname)

    if spos = 0 then
    do
       vpos = pos(':', dname)
       if vpos = 0 & spos = 0 then
       return dname

    end

    file = substr(dname, max(vpos, spos) + 1)

    return file

end
```

Listing I, showing the changes made

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Bright future on the cards

Julius Alexander reports on the latest PCMCIA technology and even faster CD-ROM drives

This month we're looking at a rapidly growing new technology that will have a dramatic impact on the future of Amiga multimedia development. Not stopping, I'll be looking at two new developments in CD-ROM drive technology and the possible future of Amiga CD systems.

With the coming of the A600 and later the A1200, Amiga owners have a new interface medium, PCMCIA. This provides a low cost, compact interface that can be used for a wide variety of input mediums and will thus have a considerable effect on not just Amiga, but industry-wide multimedia applications.

But just what is this new interface and what will it offer to you and me? In short, it is a set of standards, laid down in August 1990, which cover the physical aspects of a range of credit card sized devices which bring new levels of power to us.

All PCMCIA cards feature a 68-pin connector. There are different heights for the cards, with the various PCMCIA version numbers determining the height.

Thus Version 1 cards are 3.3mm thick, Version 2 (as found on the Amiga) 5mm, while Version 3 are 10.5mm. The recently announced Version 4 are 16mm thick.

The need for different heights comes from the ever-increasing need to cram more into PCMCIA cards.

The earliest cards were designed simply for memory upgrades. The latest release (16mm) was implemented to facilitate, and I jest not, the emerging range of credit card sized hard drives. Other developments on the format include modems, adapters and fax modems.

More interesting however, for us at least, is the range of interfaces now appearing on PCMCIA cards. One of the problems of the lower end Amigas for development of multimedia applications is that they are limited in the what peripherals you can use.

While you can get hardware upgrades to provide different types of input, many go inside, and you can only fit one or possibly two at once.

Still, it's not so bad, you can unplug then, but do you fancy constantly having to open your Amiga just to "grab" a different type of data?

With PCMCIA you'll be able to chop and change between say a frame grabber, SCSI-based scanner and sound sampler simply by dropping in a different card – what could be simpler. These and other cards are already on their way. They are also scheduled to be fairly low cost.

The long and short of this is that PCMCIA should spur on a whole new generation of Amiga multimedia software. If you're an Amiga owner PCMCIA will bring you immense benefits. But there are problems.

There are already some developers releasing upgrades that are not compatible with the PCMCIA slot, and even worse require you to disable this expansion card first!

The Amiga has enough problems as it is without the hindrances from developers who take short-cuts. The message is clear – check when buying an Amiga peripheral or upgrade. If it isn't fully compatible with the PCMCIA interface don't buy it!



CD-ROM gets a dose of speed

As Amiga users, we are more than aware of the speed at which computer technology develops. Look at how, for instance, the shape of home computing has changed in just six months with the advent of 32-bit systems from both Commodore and Atari.

But what can you do with CD-ROM drives? How can you make them faster? You can't increase the speed of a CD-ROM drive can you? After all, how fast can you make a sliver of plastic spin?

Well, several of the world's leading CD-ROM drive manufacturers have announced new CD-ROM mechanisms which do just this, and in the process slash access time by half.

Last year NEC announced a CD-ROM drive that spins twice as fast as normal. Pioneer have announced a mechanism which can spin CD discs at four times faster than normal speed! This generates a sensational transfer rate of over 1Mb/second at times, compared to the measly 153Kb/second of the existing A570.

Obviously these high speed drives have to slow down for normal audio data, which requires a rate of 153Kb, but for interactive movies...

And there's more! New developments from Nimbus means that the amount of data that can be stored on a single CD disc has been almost doubled.

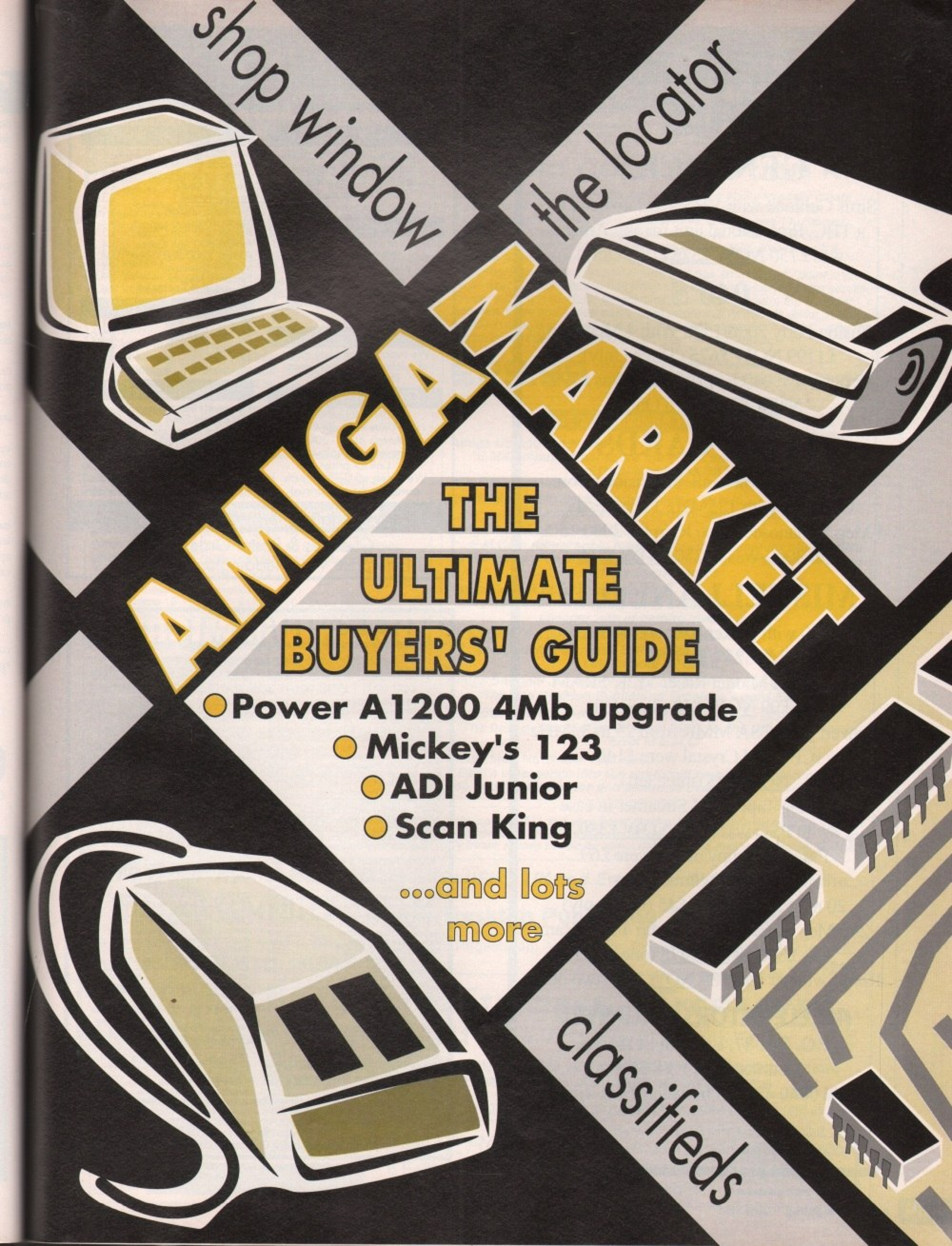
Currently the maximum length of movie that can be stored on a CD (as set by Sony/Philips ruled Red Book) is just 75 minutes - nothing given an average cinema film is now around 120 minutes. But by mid-summer, a suitable MPEG compression chipset should also be widely available – see previous columns. Combine the above three, and you can easily get a full length interactive movie, with CD quality, stereo sound on a single disc!

Thus the biggest problems that have prevented such movies appearing on CDs have been over come. So how does all this affect Amiga CD technology?

Well, Commodore are rumoured to be working on new Amiga CD systems and I predict you'll see at least one of these new technologies incorporated into these new products.

The only question remaining is whether Philips or 3DO, which I'll be looking at next month, get there first.

Philips have already put back their FMV release date until Autumn 93, so they are unlikely to make it - but 3DO with its mid-93 launch is more of a threat.


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CONTENTS

New Amigas, same old story

A high end Amiga, the A4000/030, has finally dragged its weary body below the £1,000 mark, but is it still overpriced and under-powered?

Since the A4000 was released last year, we've been waiting for the machine to make the AGA Amiga line-up complete, the mid-level machine to fill the gap between the corporate A4000 and the base level A1200.

We finally got it this month with the A4000/030 and, though much more realistically priced than the A4000, it is still more expensive than its competitors, the cheap 486 clone and the Mac LCII.

The question this raises is that although confirmed Amiga enthusiasts and serious users will no doubt see it as an affordable AGA platform for multimedia, DTP and video work, the A4000/030 could find convincing the rest of the world a somewhat more difficult task.

Competition for sales of any machine is intense in every market from games to education, and for Commodore to succeed with a non-mass market machine they must price it aggressively.

Arguments put forward by Commodore to support their marketing strategies for the A3000 and A4000/040 are that the machines are designed to appeal to a corporate market which is more interested in results and quality than cutting costs, a sort of "no-one ever got fired for buying an A4000" approach.

To a certain extent, this is a sensible policy as it allows dealers and consultants to hike an impressive mark-up with the more expensive products, taking more money from the same percentage margin.

However, the cheaper 68030 version of the top level Amiga is unlikely to reach this strata of big-spending multimedia men, at least not in its basic configuration with 80Mb hard drive and 4Mb RAM.

In this machine's case, expansion through the CPU slot, by adding either a 68040 or 68040 with DSP, gives it extra appeal with its upward expandability, but for the average enthusiast user the price of the base level machine will be the vital statistic.

Predictions as to the nature of the A2400, a machine which will now never appear, were for an AGA machine running a 68030 in a pizza-style box containing perhaps two Zorro slots with one doubling as a video slot.

In addition, the inclusion of a PCMCIA card would have given such a machine more upgrade options for the aspirant A1200 user. What eventually marched through the gates of Commodore Towers was a cut down version of the A4000 with a 68030, full desktop case with four Zorro slots, and no PCMCIA.

Basic specification for hard drives seems to have been sensibly raised to the 80Mb level, but RAM has been reduced to 2Mb chip and 2Mb fast, figures which will be strained quite quickly given the nature of Workbench 3.0 and 24-bit or Ham8 graphics.

Commodore's policy of never supplying a monitor as part of the standard package, a policy which – funnily enough – they don't apply to their PC division, is continued, so the cost of the A4000/030 system is really something around £1,250 when a cheap VGA-only monitor is added, or £1,400 with a Commodore multisync.

At this price, many will decide that a PC clone or one of the 68030-based Macintoshes is a better all-round buy.

Of course, we all know that the PC clone is a dinosaur barely disguised by a few tacky go-faster stripes and that the Mac is restricted in the tasks to which it can be put without access to funds of almost defence budget proportions, but preaching to the converted will never expand the Amiga's user base.

We cannot afford to let the Amiga become the domain of a tightly huddled and anoraked group of fanatics who communicate only between themselves, nor can we expect the machine to succeed when other platforms offer perfectly good solutions to productivity requirements for less outlay.

This magazine has never faltered in its assertion that for long term survival the Amiga must not only succeed in the rarified high-end multimedia field, but must also compete in the ultra-vicious middle market where the cheap PC clone has gained the high ground and the Macintosh has become increasingly entrenched.

The A4000/030 meets most of the requirements for such a machine with one important exception: Price.

An A4000/030 with VGA monitor for £999.99 rather than the same machine on its lonesome would present to the non-Amiga world (much the greater part of it, in other words) a machine which for value and power simply could not be matched by either the PC or the Mac.

Shop Window

PC 1204 4Mb RAM expansion with optional 68882 FPU
Supplier: Power Computing
Phone: 0234 843388
Price: £185.95

The latest A1200 peripheral is superb value for money

It doesn't take long for the computing companies at large to start knocking out bolt-on goodies for new machines but Power Computing seem to have a knack for bringing out hardware that is a cut above the rest.

This particular piece is a 4Mb RAM expansion for the A1200, and for a change the features that it boasts are for real and not just marketing bumf.

Crammed on to the neat little card which slots into the A1200's CPU trapdoor are a row of fast ZIP chips giving the user that all-important extra fast RAM, a battery-backed clock and a socket for the addition of anything up to a 50MHz 68882 floating point unit (FPU). A separate oscilator socket stands ready to accept the timing chip supplied with each FPU.

In its standard configuration with 4Mb RAM but no FPU, the PC1204 gave the office A1200 a surprising little speed boost, a result no doubt of the fast zero wait state design of the board and the availability to the system of its 70ns fast RAM.

Screen refreshes in particular were faster and the general operation of the machine as a whole was improved by the addition of the board. One gratifying area in which performance was bettered was when playing huge and memory-hungry games such as Wing Commander or B17.

When a 68882 FPU chip is installed, the speed improvement is more marked, but users will really see some action when a maths-intensive application such as Imagine is used. All such operations become smoother and faster, especially where a version of a package exists which is designed specifically to use the 68882, and the addition of one of the faster chips on offer – 33MHz or above – turns the unassuming A1200 into a powerful rendering engine. Beyond the RAM and FPU options, the PC1204 offers – as mentioned – a battery-backed clock; a feature maybe not appreciated by games players but which any serious user of wouldn't be without. Calendar programs, diaries, organisers, spreadsheets, wordprocessors - you name it, they all benefit from the existence of a permanent system clock which is always set to the correct time.

At £184.95 for 4Mb RAM and anything from £74 upwards for a 68882, the Power Computing PC1204 is easily the best peripheral of the bunch this month.



Power Computing's excellent PC1204 RAM expansion

Gasteiner Scan-King 64 greyscale mono hand scanner

Supplier: Gasteiner
Phone: 081-365 1151
Price: £89.99

As soon as you clap eyes on Scan-King you think it's going to be a real waste of time. The scanner itself is packaged in one of those really naff shrink wrap-type hard plastic covers, the kind you would expect on really cheap child's toys made in Taiwan.

And the name doesn't really instil you with confidence. I mean come on, Scan King? What next, Monster Modem?

Aside from that, the actual gear itself seems to be very sturdy if a bit bog standard and software is only on one disk which is a bit of a relief. but the packaging really does leave a lot to be desired.

I couldn't read the manual because we were sent the German one by mistake. Luckily the software was in English so I struggled on. On loading the package you are presented with a list of icon tools down the left-hand side of the screen – just your average art package tools, spray can and pencil facilities but it stuck me as being very jerky and inaccurate. Also, the icons are very big and clumsy.

To remedy this I went to Screen Format, put the screen into interlace and made the bitplane value higher. This had a dramatic effect – it made all the different gradients of shading smooth instead of half tone dots and the tools looked much better. Why the programmers didn't set the program to run in interlace in the first place is beyond me.

Actually making a scan is really easy – don't worry about all the buttons and switches on the scanner, as the only one you really need to bother with is the brightness control. You can control what DPI you will be scanning at, but it's best to just get yourself started first and concentrate on such things later.

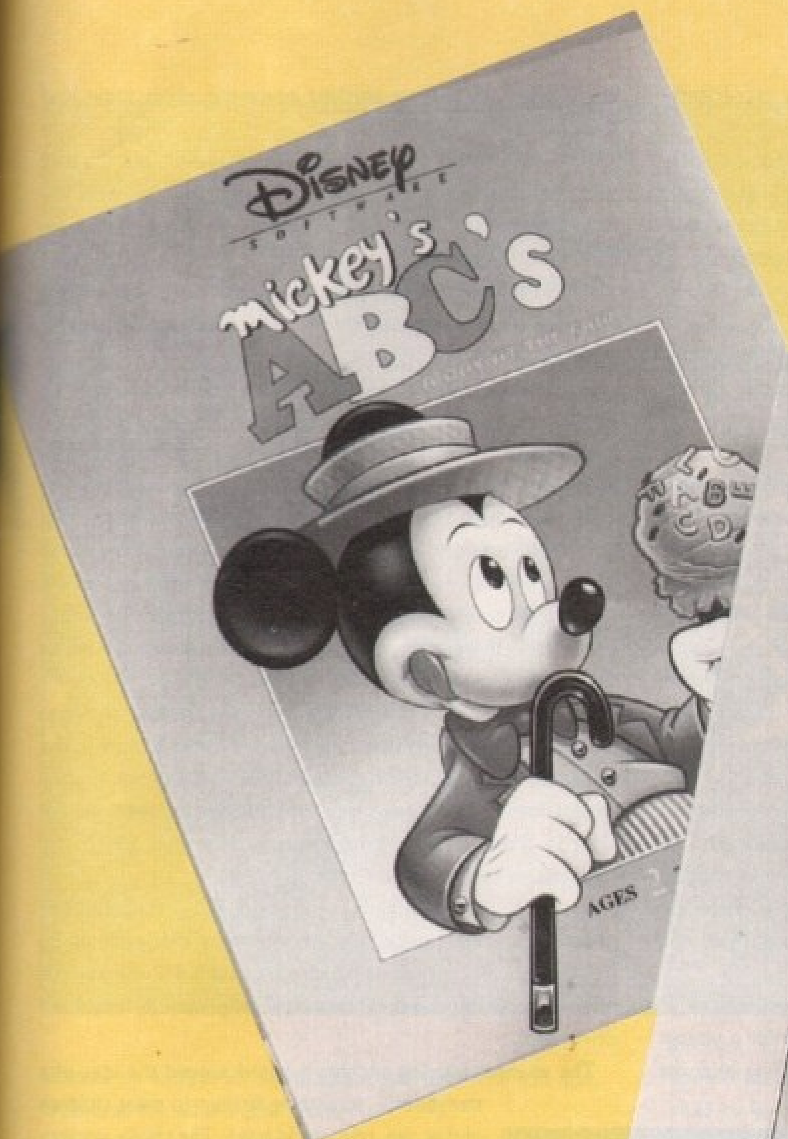
When you choose Scan from the menu bars you will be asked how wide and how long you want to made the scan. This is fine but the software doesn't limit you to the width of the scan. This is a bit silly really because the scanner is only 100mm or so wide.

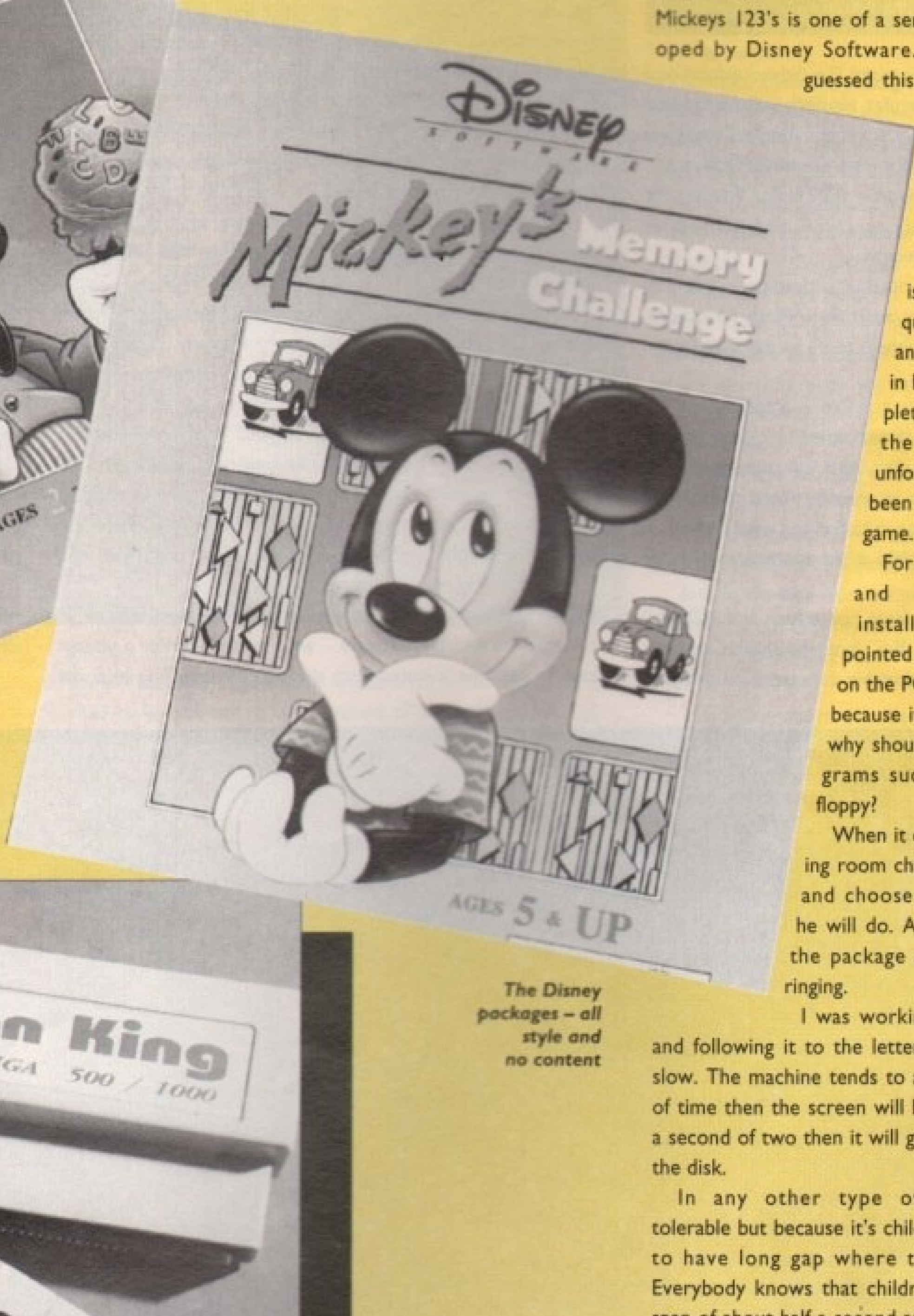
To scan, you must place the scanner at the top of the piece of artwork and slowly pull down. Once I had an image in RAM I was most pleased with the variety of effects and tools that were available. There were various flips and image filters – but they do take a hell of a long time to work.

The most handy were the 90 degree and 180 degree flips which you use quite often because it is not always possible to scan your image the right way up.

Bear in mind that this equipment is designed especially for the A500 – there is no way you can run it on any other Amiga. Also you will have to put up with the sometimes painfully slow screen updates and be prepared to wait a long time for some of the tools to work.

Itr scans up to 400dpi which is good enough for any sort of work you would be doing at home unless you wish to scan transparencies, in which you're looking as spending no less than £1,000.





The Disney packages – all style and no content



The Scan King scanning package

Mickeys 123's

Educational software
Supplier: Infogrames
Phone: 071-738 8199
Price: £25.99 per product

Mickeys 123's is one of a series of American releases developed by Disney Software. As you've probably already guessed this is the same Disney of cartoon fame so all the characters in the programmes are the more famous cartoon stars like Mickey Mouse, Goofy and so on.

The package oozes quality – it is the type of program you could quite happily take off the shelf and thinking you would be all right in buying. It looks wonderful, complete with jaunty Mickey stuck on the cover. But as the program unfolds it seems that more time has been spent on the box than on the game.

For starters, it comes on two disks and is not hard drive installable. As a colleague of mine pointed out, if this program had been on the PC no-one would have touched it because it is not hard drive installable so why should we have to put up with programs such as these which boot from floppy?

When it opens Mickey is asleep in his living room chair. First you must wake him up and choose where he must go and what he will do. At this point I was seconds into the package and alarm bells were already ringing.

I was working with the manual beside me and following it to the letter but the action was incredibly slow. The machine tends to access the disk for some length of time then the screen will burst into frantic movement for a second of two then it will go dead again while it's accessing the disk.

In any other type of software this would be tolerable but because it's children's software you can't afford to have long gap where the child is not entertained. Everybody knows that children as a rule have an attention span of about half a second and they must be kept engaged. I really don't think that Mickey's ABC would stand up in a classroom.

Another thing which I found very unusual is the lack of educational content. Most of the sub-applications don't actually demand anything from the pupil.

To me the program is directed at pre-school children because a lot of the time it is dealing with concepts instead of actual numbers. It tries to introduce the child the ideas of more or less and quantities.

There are some nice reward sequences when you finish levels and some good sound effects to keep the children engaged but there is no long lasting appeal.

ADI Junior – Reading and Counting

Supplier: Europress Software
Phone: 0625 859333
Price: £19.95 each

Following on from the highly successful Fun School educational software range (with which regular readers will be familiar thanks to modules given away on recent *Amiga Computing* CoverDisks) are ADI and ADI Junior from Europress Software.

Four packages arrived for review – ADI Junior Reading for age groups four to five and six to seven, and ADI Junior Counting, for the same two age groups.

The ADI packages contain a number of features – many of them unique – which stand them apart from much educational software, and help the child using them to do so more easily and successfully.

The ADI character himself is a prime example. Inherited (downwardly!) from the ADI packages aimed at older children, ADI Junior is a cute and cuddly alien who will guide your child through the package, popping up at relevant points to scold or smile and generally poking his nose in to find out what's going on just at those moments when a child might appreciate his being there.

For instance, click on Quit from something and ADI will appear, nodding his head at the "Yes" icon and shaking it at the "No". His presence adds a comfortable coherence to the proceedings and will make the package feel far more user-friendly to a computer-shy child (does such a thing exist?).

For your money you get three disks, a manual, some colour-coded copy protection booklets, a concise list of the games and exercises contained in the package, and a registration card, which as always is worth sending back to the manufacturer in order to ensure information regarding upgrades and the like.

Loading the program is simply a case of slipping the disk marked "E1" (for "environment") into your drive and turning the machine on. The program will load automatically, asking you for some identification from one of the copy protection booklets at some point in the procedure.

Correctly input and you are led into ADI's Environment – a unique land which forms the centre of ADI's world for the duration of any playing session.

The Environment is best described as a kind of pictorial, child-optimised Workbench, from where you can access any number of functions.

When the mouse pointer changes into a beige pointing hand, whatever object it is positioned over will, when clicked upon, perform some kind of animation. For instance, the tortoise will roll over and laugh, before running off, when "tickled".

When the mouse pointer is a red hand pointing, clicking on the object concerned will initialise an activity of some kind. This could be a tile puzzle or a simple racing game; an infants' paint package or a time-telling exercise. Whatever is selected, though, is simply for the child's amusement, and does not "score" anything measurable.

The idea is that the child gets comfortable with the use of the machine and the software – what better way for a youngster to become initiated than through an appealing pictorial world where clicking on anything interesting elicits some kind of response?

The place where the packages differ, however, and the part where the "real" learning and assessing goes on, is in the Applications. Each package comes with two unique disks containing its Applications.

These are the bits that are tailored to suit the age groups mentioned, and each contains well over a dozen activities which are assessable by the parent.

To use the Applications, the user puts the correct Application disk into the drive and clicks on the door in the Environment. Then a "book" showing what is available for loading appears, and you simply select the chosen Application.

Here is where I have a gripe with the packages. The manuals are shared between PC and Amiga users, which I can put up with, even if they do become unclear in places (why do I need a Microsoft mouse?). What I don't like is the fact that – as far as I could tell – there is no way of installing the Amiga version of the program to hard disk.

Not only is this a pain for the increasing number of Amiga owners who have hard disks, but we are snubbed further in the instruction book when it boasts about how, if you put all your applications in the same place on your hard drive, you can choose from a huge library every time you go to the Applications selection sheet.

As it is, we Amigans are limited by the number of activities which can be held on one floppy disk, with all the waiting and disk switching which this entails for the serious education-package user. Come on Europress, we buy hard drives too!

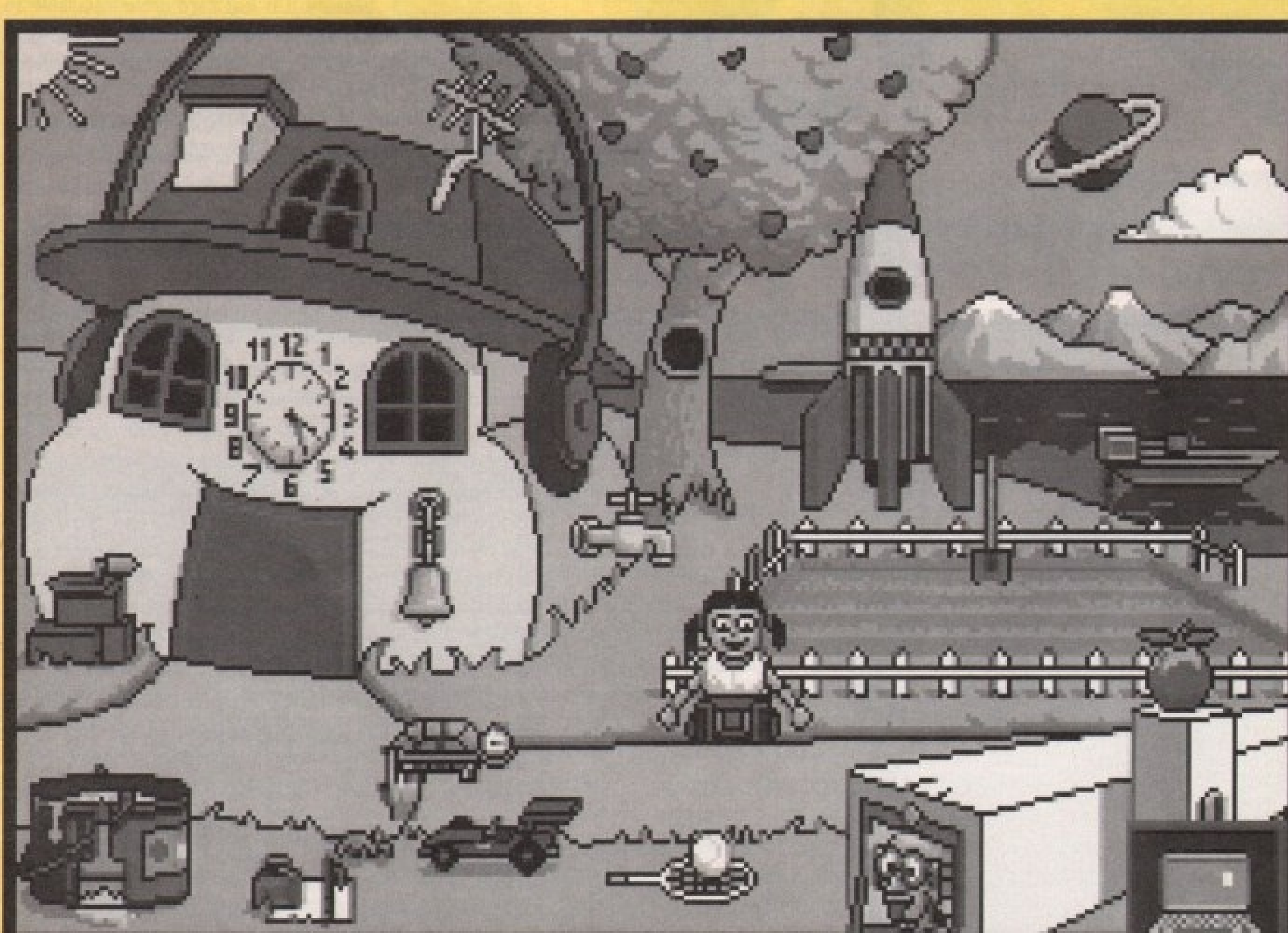
The younger Reading package is based around the idea of a storybook – something familiar to most children of that age, one would hope. The child's vocabulary is strengthened in key areas such as the home, food, animals and so on.

There are games to be discovered and exercises to be completed – I particularly liked ADI Junior's Gymnastics, which is similar to the Simon Says games I remember from my childhood.

In this variant, the child is encouraged to copy what ADI Junior is doing, by making a robot do the same things – a fun activity requiring a lot of thought. This is something I can personally testify to!

This particular set of Applications cover a good deal of National Curriculum Attainment Target Level 1's requirements, touching upon the requirements for Level 2 as well. However, ADI Junior Reading for six and seven-year-olds – being naturally more complicated and advanced – completely fulfils level 1, touching on all areas of Levels 2 and 3 too.

Here, the Applications are based in a farmyard, and the package aims to improve reading and writing skills. Using difficulty levels which can be changed by the child as well as the parent or guardian, it is possible for children of varying



The ADI Environment – A workbench for children



Nice place, bunny!

abilities to extract an equal amount of use from this and, indeed, all the other Applications.

Exercises fine-tune and develop essential skills such as recognition of common letter groups, reading with understanding and vocabulary, while still working on more general development of skills such as observation, logic and judgement.

Judicious use of digitised speech from ADI as well as sound effects and the user-friendliness described earlier ensure that, if the child needs help at the beginning, he or she will soon be happily bashing away at the keyboard unattended.

The younger of the two Counting packages is set in the rather cosy environment of a rabbit's den. The rabbit – who bears more than a slight resemblance to Bugs Bunny – is as cartoony and appealing as the rest of the characters who appear in the packages.

Spatial, number and algebra skills are all developed as is, of course, the ability to count. When the child is confident at counting pictures, they can be replaced with real numbers, and a calculator helps to develop practical number usage.

The use of everyday objects such as marbles, seeds and clowns in the 15 activities present help to make the child comfortable, and any child who scores well on all of these will have fully satisfied Attainment Target Level 1 and a sizeable chink of Level 2 in the National Curriculum. The more senior counting package expands upon these skills to the point where a parent could expect a child to be fully up to the standard of the contentious Key Stage 1 Standard Assessment Test (SAT) and realistically to be able to pass Stage 2. The more advanced exercises – such as The Candle Game, where the child is encourages to match the right sums to given answers – exercise skills to the standard of SAT Level 3. Set in a fairground, the package develops observation, memory, size and shape comparisons, and how shapes take up space.

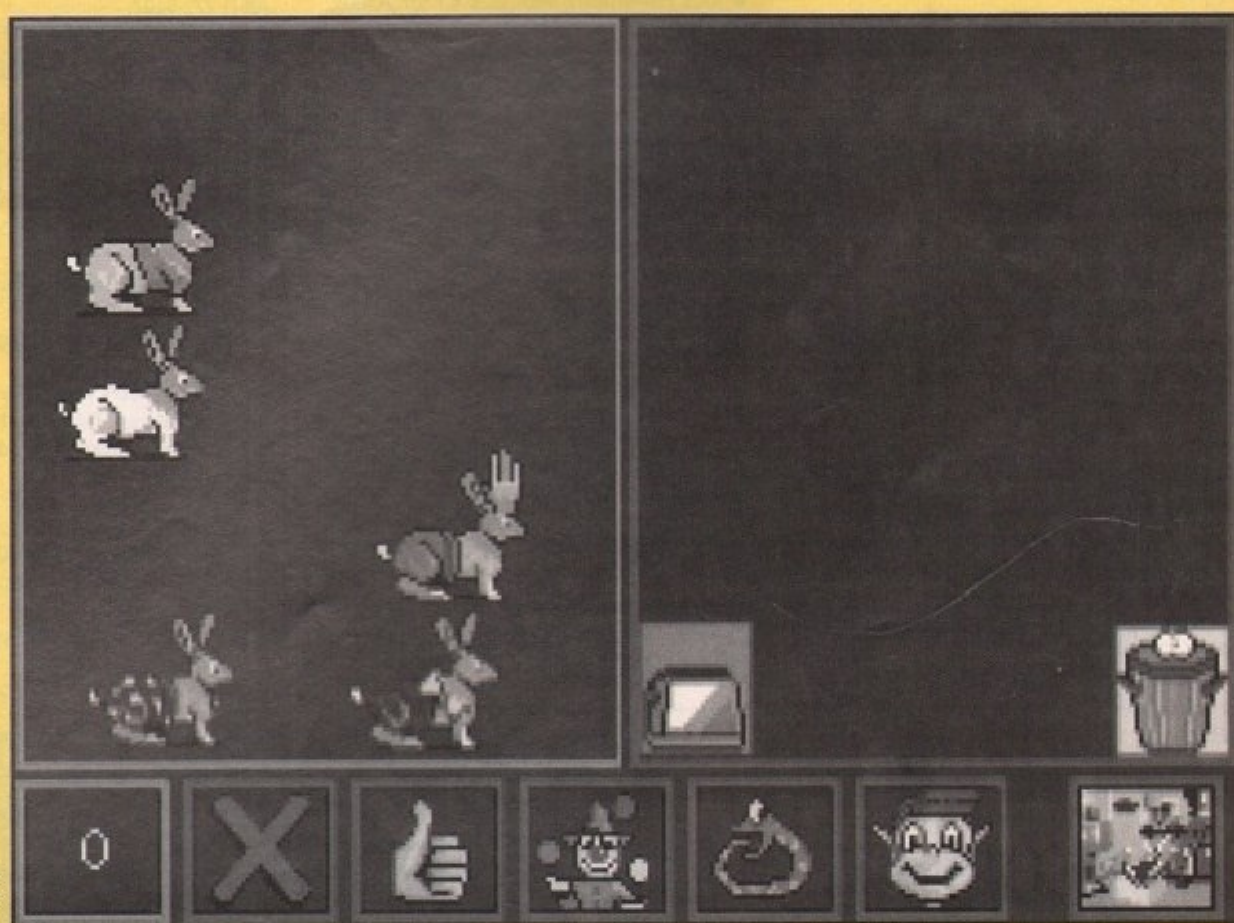
Overall, the ADI packages are as useful as they are fun. From a child's point of view, they're colourful, noisy and compelling, and from the parent or guardian's viewpoint, highly accessible by means of a function key-activated "scorecard" containing detailed results which allow the parent to advise the child's teachers as to which areas he or she may be in need of extra help – or the opposite.

There are gripes. As mentioned, the inability to install to hard disk is a frustrating decision by the programmers, and also the password protection – which feels like one of the exercises when you're playing it – could have been far more user friendly.

Personally I do not agree with distracting the user from what he or she has bought in order to access an obscure code from a booklet, but some say this is a necessary evil. Still, it would have been nice if the colours asked for on-screen matched those in the printed booklet!

But on the plus side, the programs are able to save to disk details of a child's progress, meaning that the use of ADI is an intelligent, developing set of lessons rather than a simple load-from-scratch affair.

This ability, tied in with the intrinsic learning value present in a well presented and thought-through package of this type, adds up to a set of programs of immeasurable value to the diligent parent.



Run, rabbit, run...

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◆ KCS Powerboard £90 ono. Star LC10 £90 ono. Phone Leeds (0532) 668757 evenings.

◆ Wanted Millenium 2.2, Power Packer. 230 Flora/4 St. Albert Str. Gzira, Malta. Tel 339676.

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◆ For Sale: Star LC24-10 Printer, very good condition £140 ono. Roy Benham, 64 Newenham Crescent, Knotty Ash, Liverpool L14 7PR.

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◆ Amiga magazines, accessories etc for sale. Phone 081 301 5329 for details.

◆ Contacts wanted. All models. Chris, 70 Crosby Ave. Scunthorpe, DN15 8NY.

◆ Amiga contacts wanted. Write to: Cesar Augusto 23, 50004 Zaragoza, Spain.

◆ A500 1meg Action Replay games £200 ono. Tel 0708 475758.

◆ Wanted Amiga Books, Amiga Dos Languages System etc. Also contacts (A500+). Tel 0254 385019.

◆ 78 Tarot Pics, 8 disks for £15. Phone Paul (0780) 65528.

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◆ GVP Series II 52Mb Hard Drive. Boxed as new £250. Phone Michael 081 778 3214.

◆ A1200 Contax, Elite. Write to Lee, 55a High Street, Silverdale, Staffs.

◆ Wanted cover disks from Amiga Computing, Amiga Format, CU Amiga. Will swap. 0767 40088.

◆ 105Mb Hard Drive for A500, £200. Tel Gary 0705 370616.

◆ A500+ Power Computing 8 meg Expansion 2 meg Populated, £80. Tel 0472 358184.

◆ A2000, WB2.04, 3Mb Ram, GVP 52Mb, Wordsworth, PDraw 2, DPaint IV + games + other applications, £550 ono. Tel 0823 275386 after 6pm.

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◆ Two Meg A500, £270. Other accessories for sale. Tel York 422410.

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◆ Amiga Contax Sonic. 76 Westmorland Drive, Costhorpe, Worksop, Notts S81 9JT.

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◆ Amiga games £5 to £10 including Robocod. Phone 0242 226820.

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◆ CDTV Keyboard £35. Tel (0502) 513923 after 6.30pm. Ask for Mat!

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◆ ICD Adseed 143MHZ Accelertor plus £15 , Strike Eagle 2 £90 . Tel 0908 316025.

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◆ Unwanted brand new boxed Amiga A600 Lemmings pack under one year warranty, £300 ono . Tel Scott , 0604 409133.

◆ Amiga A500+ includes printer , word processor, games and extra memory. Tel 051 625 8994.

◆ Miracle Keyboard Teaching System as new unwanted gift, cost £300 , £180 delivered complete with hardware, software, and manuals. Tel 0532 607259.

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◆ Amiga 600 FD five months old loads of extras, £295 ovno, Tel 0985 216497.

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◆ AT 286 Bridgeboard , 5.25" diskdrive, MSDOS 3.3 with manuals ,£125. Tel 0602 307247.

◆ Contacts wanted, write to: Scott, 22 Bedford Way, Rugeley, Staffs .

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◆ Amiga contacts wanted : D.J.S , 8 Restormel Road East, Looe, Cornwall PL13 1EJ.

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◆ Amiga Software sale , 17 Springfield Street Swinley, Wigan, Lancs WN1 2NA.

◆ Amiga demos wanted : Piazza Giorgio , 21 Via Veclio, 20052 Monza (M.I), Italy.

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◆ Amiga videotapes wanted . Giogio Piazza, 2[1] Via Vecelio, 20052 Monza, Italy.

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◆ Amiga contacts wanted, whole world, Torerik Brunsvik, Byasvein 136F, 702[0] Trondheim, Norway.

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◆ Amiga Music Makers Heaven! Four C.D's bursting with Drum loops, inustruments and effects. Over 3000 samples! Top quality stuff. Originally £60 per disk. £100 the lot. Tel 0443 201731 after 6.30pm.

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◆ Contacts wanted in Derry! David, 77 Ba[...] Drive, Londonderry , BT47 2HL.

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◆ Contacts wanted 100% reply. Kev 16 ST Ives Court, Tyneham Road, Swindon, SN3 3PY.

◆ Contacts wanted write to Mick at 6A Churchill Way, Burton Latimer, Northhants.

◆ Amiga contacts wanted, lists to 23 Endsleigh Gardens, Blackpool, FY4 3PA.

◆ Amiga contacts wanted 100% reply. 22[9] Chapman Hall, Hatfield, Herts, AL10 9BT.

◆ Gamer LInk penpal club : 28 Churchfield Ware, Herts, SG12 0EP

◆ Amiga contact write to Kevin Doherty, 12 Conifer Avenue, Woodbury, Derry, N.Ireland , BT47 1QD.

◆ A1200 contacts. David 16 Groom Road, Turnford, Herts, EN10 6BW.

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Software spotlight

Making music the modern way is a doddle with an Amiga. We look at some packages designed to help you

Some hard facts

Using a sequencer needn't be a hardware nightmare on the Amiga side, but it will be on the music side. Two megabytes of RAM should be enough for most uses unless the user is planning on using lots of gigantic samples, and a hard drive would be best, but the Midi equipment requirements are as expensive as your budget and ambitions will allow.

For any kind of serious work, a Midi interface and Midi compatible keyboard with its own built-in voices are essential. After this initial investment the user can start to look at mixers, four-tracks, monitors, microphones and so on, right up to 16-bit sampling equipment and near-studio quality modules such as the Roland CM range.

A member of the AC staff, who shall remain nameless, recently spent £650 in one hour at an Amiga show on just this sort of kit, so don't say we didn't warn you.

Bars and Pipes Pro 2

Bars and Pipes Pro (BBP) is easily the most modern and easy to use Amiga sampler around. It's interface is designed to take the software hassles out of the music creation process and leave the composer to get on with the job at hand.

With release 2 and the inclusion of direct control over multimedia events, BPP is now also the most powerful and flexible Amiga sequencer.

As the name of the package suggests, the BPP interface is controlled via bars and pipes which represent the channels going into and out of the sequencer through which all Midi data passes.

To alter the Midi data as it passes through, the user simply selects one of the tools available and drops it into the pipeline rather like adding an ingredient to a recipe. Unlike most recipes, however, these ingredients can be shuffled around or dispensed with at the user's discretion, encouraging experimentation more than any other sequencer.

Under the colourful interface, BPP is a powerful sequencer with a full range of SMPTE options and system exclusive commands, so it is ideal both for the inexperienced composer looking for a "suck it and see" sequencer and the seasoned user alike.

Supplier: Meridian Software Distribution
Phone: 081-543 3500
Price: £299

KCS Sequencer 3.5

One of the most powerful sequencers available on the Amiga, KCS (from Dr T's, one of the oldest music companies in the Amiga market) does just about everything, and in a very professional way.

The program is not ideal for the beginner, however, as both the software and the manual make assumptions about the user's knowledge of Midi and music in general.

The package has a modular approach which it calls the Multi Program Environment (MPE), including the Tiger software for graphical editing, the Automix mixing program, and Quickscore for generating traditional sheet music. On the ST side, over 30 such modules exist, though the package has enough to be getting on with, so we could see many more additions to MPE appear in the future.

Overall, KCS is ideal for the professional or very serious home Midi enthusiast as it packs in a vast array of powerful Midi features, but is not recommended for the beginner or occasional songster. It could use some friendly front-end graphics, but apart from this there's very little that the package lacks.

Zone Distribution
Phone: 081-738 5444
Price: £279

SuperJam!

SuperJam, from Blue Ribbon Soundworks (makers of Bars and Pipes) is the ultimate beginner's package because it is designed almost to write the music by itself.

Based heavily on the same graphical front end as Bars and Pipes, SuperJam! is extremely easy to use and capable of producing some excellent output.

SuperJam! isn't nearly as powerful as the traditional high-end sequencers, but as it has been designed to carry out a different function, this isn't a big problem. In basic terms, SuperJam! is a band-in-a-box containing six built-in musicians who can be told to play variations on certain chords in any style the user desires.

For instance, if requiring a blues number in C, G, and D, the user need only supply the chords and select a style from the style list, and the musicians toddle off on their own as the ultimate dedicated backing band.

To avoid repetition, each musician can play up to 16 variation in any one section of the song, which means there is a total of 16 million potential backing tunes. When the user is ready, he or she just jumps in with the selected instrument. Not best looked upon as a full-blown sequencer, SuperJam! is great fun and a handy tool for those in need of a little inspiration.

As a standalone music package, however, it has its limitation, and can't offer the more advanced features found in the dedicated sequencers.

Supplier: Meridian Software
Phone: 081-534 3500
Price: £99

Sequencer One Plus

The Gadjits sequencer is a fairly new product, and the Plus version a major revision, so it's not surprisingly one of the most modern, easy to use sequencers. Fortunately, Sequencer One Plus is also one of the most powerful.

The "Diamond Drag" editing system used in the package is probably the easiest graphical editing feature around, and gives the user total control over the finished sound.

Using it, the novice or seasoned user can simply drag a point on screen with the mouse to alter existing sounds or create new ones.

There are plenty of powerful Midi features packed in under the surface as with the other modern glitzy sequencers, such as Midi system exclusive commands, very flexible Midi timing and pan/volume controls, and a track and cue sheet screen with 32 tracks.

Allied to the tape deck-style controls provided for many standard operations, the Sequencer One Plus combination of power and ease of use is hard to beat.

Supplier: Gadjits Music Software
Phone: 061-236 2515
Price: £159.90

OctaMED Pro 4

Having been spawned by a shareware program known and loved by thousands of Amiga musos, OctaMED should need little introduction. It is an eight-channel sequencer with basic graphics and lots of powerful features given the price, and the first stop for anyone thinking of making a start in Midi.

Buying OctaMED won't break the budget, but it will give the user some idea of whether or not they have the talent to produce original music.

OctaMED does everything a beginning muso could ask for. It supports Midi, can be used as sampling software with sampling hardware, there's a built-in sample editor, synth sounds can be created from scratch

The program is good enough to keep the beginner going for a long time while the exorbitant asking price for the power sequencers is saved up, and is a very cheap way to find out if you have it in you. Look out for earlier versions which are now available in the public domain.

Supplier: Amiganuts UK
Fax: 0703 785680
Price: £29.95

A-Z OF VFM

HARD TIMES

The shopper's guide to buying a hard disk, so if you're thinking about that big investment, this is the place to start looking

GVP A500 HD8+

As is usually the case with GVP hardware, their HD+ series is fast, reliable, flexible and thanks to a recent slash in price a lot more affordable than you might imagine.

If quality counts you can't go far wrong with a drive that's not only one of fastest on the market but also boasts the option of an additional 8Mb of fast RAM, a SCSI port and a game switch which unlike some doesn't disable the on-board RAM.

As with almost all hard disks there's a whole range of sizes available starting from 42Mb stretching right up to 213Mb. If you're interested in the basic version it will set you back a very reasonable £299.

Supplier: Silica Systems
Phone: 081-309 1111
Price £299 (42Mb unpopulated)

Ashcom ADD-Hard 42Mb

Last but not least we arrive at a real punter product in the form of Ashcom's ADDHard 42Mb. Not perhaps the most inspiring title ever to adorn a drive but if it's value you're after, who cares what it's called?

The drive itself is the ultimate in simplicity, no SCSI port – although the drive itself is a quantum, no RAM expansion, no PSU, just a bargain basement price tag which suits the basic do-the-job design.

It's small and rather unassuming in comparison to the style of the GVP and AT drives, but still retains a modicum of minimalistic dignity.

It comes completely formatted with either Workbench 1.3 or 2 so installation is a simply case of plug in and you're off. If you're after a cheap and cheerful introduction to hard disk use without any of the frills offered by the opposition, the Ashcom is just about ideal, especially if you're on a tight budget.

Supplier: Ashcom Design and Developments Ltd
Phone: 0530 411485
Price: £265 (42Mb drive)

IVS Trumpcard 500AT

The AT comes in a very pleasing Amiga-esque moulded plastic case complete with power and access lights.

It arrives minus a PSU, but it doesn't appear to suffer from any power problems, even when equipped with a full complement of 8Mb of RAM.

Both the drive and RAM are extremely economic concerning power but even so an option for an external PSU has been added. The reason for this seemingly unnecessary option is the drive's DMA-through port.

This option allows the connection of CD-ROMs and other side slot peripherals without the need to remove your drive – a problem which haunts a lot of the opposition.

With a reasonably quick 42Mb Quantum, up to 8Mb of RAM, DMA pass-through and arguably the best and certainly the easiest installation software on the market, the AT is one of the most attractive options around.

The only problem with a 42Mb AT interface as opposed to the equally spacious SCSI drives offered by the opposition is that of speed and expandability.

Although about average for speed transferring 530k per second, its main downfall is its inability to daisychain extra drives, à la SCSI.

If however one drive will be more than enough and you find that DMA access is essential to you, the AT is a very attractive option.

Supplier: MicroPACE Distribution
Phone: 0753 551888
Price: £299 (unpopulated 42Mb drive)

A530 Turbo

As a logical progression to the HD+, the A530 Turbo is an obvious choice. Although physically identical to the aforesaid HD+ the A530 is a different kettle of fish altogether.

Although not strictly just a hard disk it's well worth a mention especially for those who take computing seriously.

As you may have guessed thanks to the reference to 32-bit RAM, the unit also boasts a 40MHz 68030 which can be fitted with an optional 68882 co-processor.

When the combination of hard disk, accelerator, FPU and RAM are put together you're dealing with a powerful beast which on pure speed will easily outgun a standard Amiga 3000.

On top of all of this, both the HD+ and A530 will accept the services of a plug-in Vortex 286 PC emulator which somehow manages to squeeze in among the growing band of components.

Supplier: Silica Systems
Price: £699 (Basic unit – 42Mb h/drive)
Phone: 081-309 1111

Rössmoller Hard Disk

Or to give it its full title, the Rössmoller 52Mb Quantum. Although the word Quantum is synonymous with quality it must be said that the hardware around it doesn't quite match up.

Unlike the majority of drives mentioned, the Rössmoller doesn't have the option of adding any additional RAM. In addition power is provided solely by the Amiga.

Another minor irritation is that although the drive is a SCSI there's no way of daisy-chaining additional drives to your existing Quantum. However the unit does offer a DMA pass-through allowing you to exploit the services of scanners and the like...

The drive arrives pre-formatted, so all you have to do is add the software of your choice. If you don't want whistles and bells and can live without LEDs, the Rössmoller is a respectable bargain basement investment.

Supplier: Sysons Associates
Phone: 081-907 2100
Price: £319

AlfaPower

In the best tradition of capitalism, Gasteiner have joined the fray with their new AlfaPower drive which offers all the basics at a very reasonable price. The unit can vary between 40 and 120Mb while housing up to 8Mb of RAM courtesy of cheap and cheerful Zip chips.

In order to keep costs down to a minimum the AlphaPower comes with an IDE as standard with the option to go for either a full size or 2.5in drive. The advantage of the 2.5in is that it's ideal if you decide to invest in an A1200 later on.

Although fairly basic with simple on/offs for the drive and any additional RAM, a DMA thru-port has been provided plus a ribbon cable pass-thru on the rear allowing additional drives to be appended to the controller.Like most of the drives on offer, power is supplied by the Amiga, however an input for an external PSU is available if required - in our tests it wasn't. As for speed, the AlfaPower is quite respectable and matches up well to the other IDEs in the roundup.

All in all this is probably the best basic hard drive on the market with all the essentials, reasonable speed and a price that puts it at the top of the budget buyers shopping list.

Supplier: Gasteiner
Phone: 081-365 1151
Price: £199 plus £69 per 2Mb of RAM

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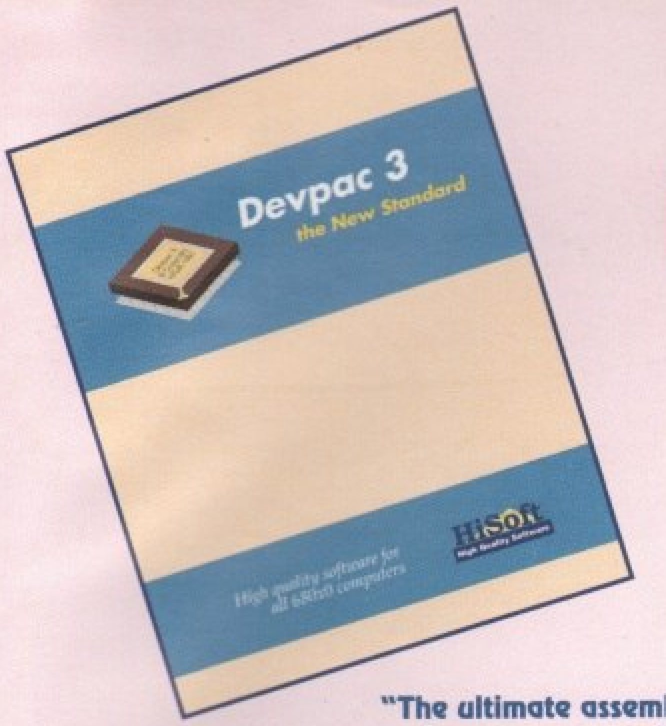
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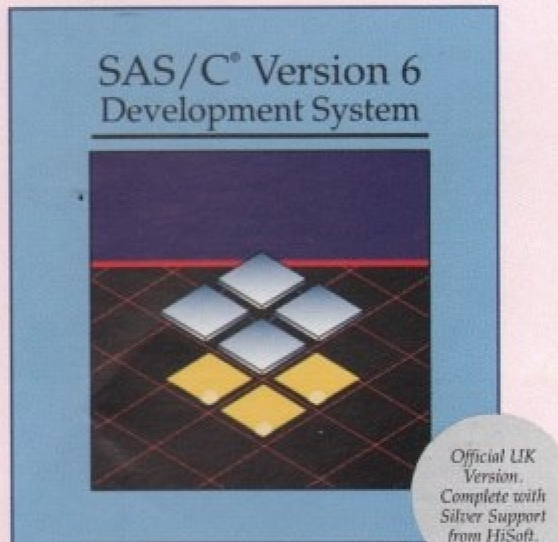
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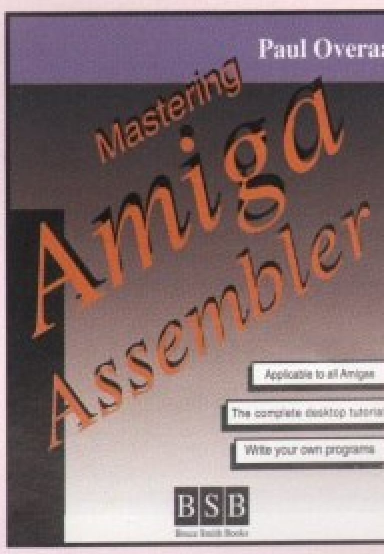
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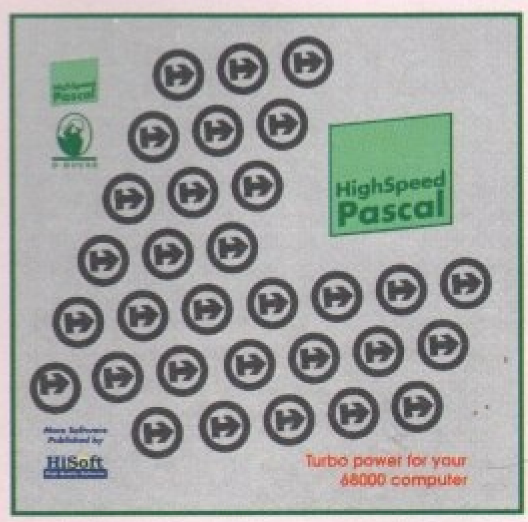
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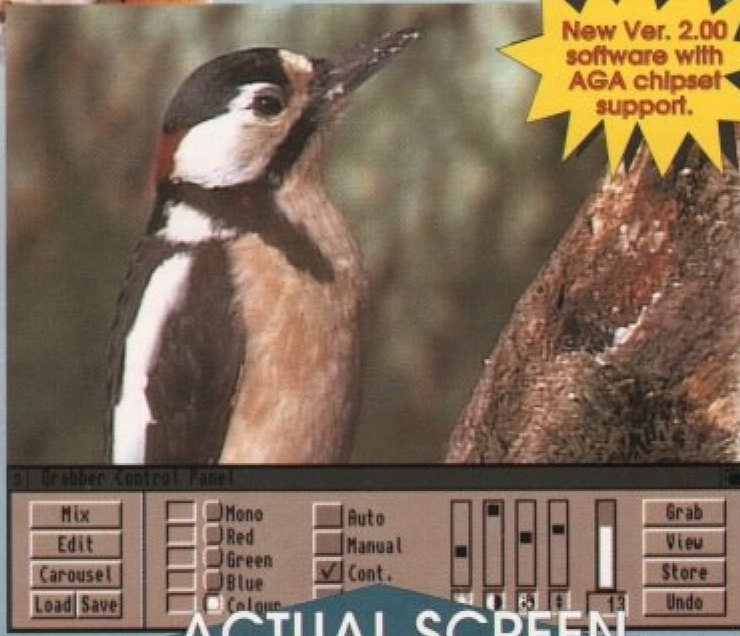
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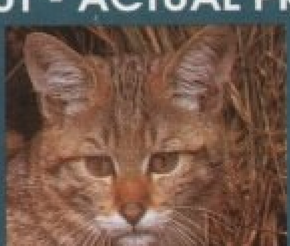
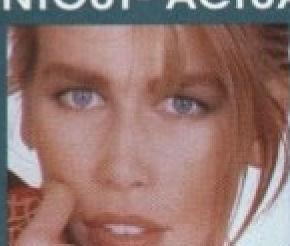
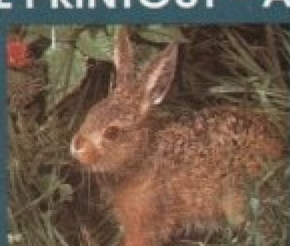
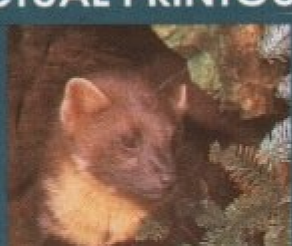
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